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ABSTRACT

A training manual for teaching functional sign training to the severely multiply handicapped was developed using the Signing Exact English (SEE) system. The program, which was adapted from the Functional Speech and Language Training Program, is designed for persons who lack refined motor, speech, and language skills. Procedures are outlined to use with students who rarely make any sounds; students who may make many sounds but who rarely make different sounds, or who rarely sound as if they are saying words; and students who have poor articulation of their speech and who require only a few signing cues to make themselves understood. In each case, shaping, prompting, and putting-through (e.g., moving hand to point to the correct object) techniques are used, and criterion performance is specified. For the focal area of "person and things," nine training steps are presented that are designed to introduce the student to the concept of language and its uses. Each step includes a description of the training goal for the step, a list of training items needed, a description of procedures to be used, training instructions, and a set of instructions used in programing for generalization. The training steps also include two types of scoring forms for recording the student's responses in each session and summary forms to record progress across sessions within the step. Training items include food, clothing, toys, and miscellaneous objects. The scoring forms include a grid that allows scoring for each trial of the signed part of the response, the spoken part of the response, and the overall intelligibility of the total response. (SEW)

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Functional Sign Training for the Severely Multiply Handicapped

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FUNCTIONAL SIGN TRAINING FOR THE SEVERELY MULTIPLY HANDICAPPED*

by

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Special Thanks to
Doug Guess, Wayne Sailor, Don Baer
(ECI Document No. 604)

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Parts of this manual are taken directly from D. Guess, W. Sailor, and D. Baer *Functional Speech and Language Training for the Severely Handicapped, Part 1.* Lawrence, KS: H & H Enterprises, 1979.

ATTENTION READERS

This program manual is a part of an entire training packet for nonspeech training with severely multiply handicapped students. The packet includes a total of 6 video tapes and one other training manual The training manual which accompanies this one is entitled: Functional Communication Board Training for the Severely Multiply Handicapped.

The video tapes are listed below:

A CHOICE WITH SEVERELY MULTIPLY HANDICAPPED: BASIC COMMUNICATION BOARDS
*A CHOICE WITH SEVERELY MULTIPLY HANDICAPPED: BASIC MANUAL SIGNING
*A CHOICE WITH SEVERELY MULTIPLY HANDICAPPED: BEHAVIORAL TECHNIQUES WITH NONSPEECH TRAINING
*A CHOICE WITH SEVERELY MULTIPLY HANDICAPPED: TEACHING SPEECH WITH COMMUNICATION BOARDS AND SIGNING
A CHOICE WITH SEVERELY MULTIPLY HANDICAPPED: NINE STEPS FOR SIGN TRAINING
A CHOICE WITH SEVERELY MULTIPLY HANDICAPPED: NINE STEPS FOR COMMUNICATION BOARD TRAINING

If you are interested in renting or buying one or more of these tapes, write to:

Media Services
Bureau of Child Research
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Parsons, KS 67357

If you would like a copy of the communication board manual or additional copies of this manual, write:

Lois Waldo
Kansas Neurological Institute
3107 West 21st Street
Topeka, KS 66604

There will be a minimal charge for duplicating and mailing tapes and manuals.

*Handouts which accompany these tapes can be found in this manual's Appendices.

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OVERVIEW

Background

Sarah, Dick and Jane. Sarah is 12 years old, has good motor skills, is severely handicapped and rarely makes any sounds. Dick is also 12 years old and severely handicapped. He makes sounds and words he hears other people say, but has never spoken a word on his own. Jane is one year old and is beginning to learn to speak. She will be a normal language user and her language skills will bring her more information about the world in one year than either Sarah or Dick have acquired in 12. With special training Dick will learn to talk. This manual is for Sarah. Sarah will need the added help of manual signing to communicate. Both Jane and Dick help us to understand how to teach Sarah to use language.

One of the first things Jane learns is that certain sounds represent certain objects. The sound "ball," for example, represents an object Jane likes, and the sound "stove" represents one she does not like. This illustrates a function of language called reference.

Soon after Jane learns that words (referents) represent objects or actions, she learns that she can often get what she wants by saying the name for it. Thus if Jane wants a ball but cannot reach it, she can say "ball" and an adult will get it for her. This is called control.

After learning that she can control her environment (to a certain extent) through the use of referents, Jane soon learns that she cannot control it as much as she would like because she does not know enough referents. Her next step is obvious. She begins to ask "What's that?" This process is called self-extended control.

Jane soon learns concepts such as colors, size, and possessions. Then she begins to put all her skills together to produce a simple but effective language structure with which she carries on simple conversations. She also begins to remember the answers to her questions and to supply the correct referents from memory rather than continually asking "What's that?" This process is called integration.

These concepts concern speaking or expressive abilities. For expressive skills to be acquired however, there are corresponding skills which are receptive rather than productive. Receptive skills allow the understanding of statements heard and questions asked such as "Come here" and "You want to . . .?"

Although this process may not represent exactly how normal children learn to speak, it is one we follow in teaching language-delayed students to use language. Dick will learn to talk after receiving training in a program using the concepts of reference, control, self-extended control, integration and reception as its basic organizational structure. This program is entitled Functional Speech and Language Training for the Severely Handicapped, Part I (available from H & H Enterprises, Box 3342, Lawrence, Kansas 66044). This program was written by Doug Guess, Wayne Sailor, and Donald M. Baer.

However, some children, like Sarah, may never learn to talk well enough to make themselves understood. Sarah does however have good hand and finger control. By adapting the program used with Dick, Sarah will still be able to learn a functional way to communicate by using manual signs. The program presented in this manual was adapted from the Functional Speech and Language Training program. It was developed primarily for persons who not only lack language skills, but who also lack speech skills.

This manual was developed using the Signing Exact English (SEE_2) system. This system was chosen because of its ability to closely parallel the grammar of the English language. This system's signs are described in the manual Signing Exact English by Gerilu Gustason, Donna Pfetzing, and Esther Zawolkaw, and is available from the International Association of Parents of the Deaf, 814 Thayer Avenue, Silver Spring, Maryland 20910. Other signing systems may also be used in this program; however, it is strongly recommended that whatever system is chosen be able to also parallel English grammar.

This manual eliminates the need for specialized facitities or specially trained teachers. It can be used in a variety of settings ranging from institutions to the home. The only prior knowledge required is some understanding of behavioral management techniques. The program has been made as specific as possible while still retaining the flexibility necessary to meet the needs of individual students.

This program was developed from three years of research. It has been used with over a dozen severely handicapped individuals and found to be effective.

Persons and Things

There are nine training Steps in the Persons and Things category. They are constructed in accordance with the five dimensions of language discussed in the Background and are designed to introduce the student to the concept of language and its uses.

The training in these initial Steps is lengthy for most students. Steps 1 and 7 tend to be the most difficult. Most students will learn, although there are students whose progress is so slow that extensive training is not justifiable. It is difficult to explain why some students fail. In many cases, lack of progress is clearly due to weak reinforcers. In other cases a modification in the training procedure may improve the student's performance.

One common problem the trainer may encounter is a student in Level A or B who uses unclear, or sloppy, hand and finger movements while signing. If this occurs, it is important for the trainer to attempt to prompt or shape a clear sign. Only signs which can be understood by someone unfamiliar with the student or unfamiliar with the topic of conversation should be considered correct, thus allowing the student to achieve criterion. Many signs will improve as the student progresses through the training sequence. However, if many sessions are spent attempting to elicit more intelligible signs, or if several signs are considered "correct," even though they may not be understandable, a change in communication mode (to a communication board) may be necessary.

Another problem which may occur is a student who will repeat the movement of a sign again and again each time he/she uses the sign. This problem, too, tends to eliminate itself as the student progresses through the program.

Finally, some students will not reach criterion on some Steps. This does not mean that the program should be discontinued. Some children will fail to reach criterion performance on a certain Step, yet will easily achieve criterion on the next Step. As a rule of thumb, a student should have at least 25 training sessions on a particular Step (or phase within a Step) before moving to the next Step. If, however, the student is showing steady improvement toward criterion performance, the trainer should continue training beyond 25 sessions. However, no Step (or phase within a Step) should be pursued for more than 40 sessions.

Table 1 presents an outline of the Steps for the Persons and Things category.

Table 1
Functional Signing Training for Severely Handicapped Students

STEP		TRAINER'S STIMULI sign / "speech"	STUDENT'S RESPONSE sign / "speech"
1a	paired speech and sign	(Shows object) asks, what that / "What's that?"	(label) / "(variable)"
1b	speech alone	(Shows objects) asks, "What's that?"	(label) / "(variable)"
1c	sign alone	what that	(label) / "(variable)"
2a	paired speech and sign	(Shows objects) instructs, point to (label) / "Point to (label)"	(points to object)
2b	speech alone	(Shows objects) instructs, "Show me (label)"	(points to object)
2c	sign alone	(Shows objects) instructs, show me (label)	(points to object)
3a	paired speech and sign	(Shows objects) asks, what want / "What want?"	want (label) / "(variable)"
3b	speech alone	(Shows objects) asks "What want?"	want (label) / "(variable)"
3c	sign alone	(Shows objects) asks, what want	want (label) / "(variable)"
4[1]		(Shows novel objects)	what that / "(variable)"
5		(Shows mix of novel and learned objects)	what that / "(variable)" for novel items OR (label) / "(variable)"
6		(Shows novel objects); that is (label) / "That is (label)"	what that / "(variable)" OR (label)[2] / "(variable)"
7a	paired speech and sign	(Shows objects) asks, is this (label) / "Is this a (label)?"	yes / "(variable)" OR no / "(variable)"
7b	speech alone	(Shows objects) asks, "Is this a (label)?"	yes / "(variable)" OR no / "(variable)"
7c	sign alone	(Shows objects) asks, is this a (label)	yes / "(variable)" OR no / "(variable)"
8a	paired speech and sign	(Shows objects) asks, what do you want / "What do you want?"	I want (label) / "(variable)"
8b	speech alone	(Shows objects) asks, "What do you want?"	I want (label) / "(variable)"
8c	sign alone	(Shows objects) asks, what do you want	I want (label) / "(variable)"
9a,b,c		COMBINES STEPS 1 AND 8 FOR BOTH STIMULI AND RESPONSES[3]	

[1] Because the primary stimulus for Steps 4, 5, and 6 does not require speech or signs, these Steps need not be taught in the three-part sequence requiring the stimuli to be paired or alone.

[2] Step stresses acquisition of labels provided when student asks "what's that?"

[3] Step stresses discriminating between questions asked and also teaches response chaining.

Prerequisites to the Signing Program

There are three main areas of skills which seem to be prerequisite to the training described in this program.

First, the students should show an awareness of and an interaction with the children and adults in their home, work, or school environments.

Secondly, the students should show an understanding of and an interest in the "things" in their environment. They should reach out and touch objects, use some objects correctly, and show that they can see differences in objects.

Finally, the students should be able to imitate quite clearly, at least 10 different manual signs modeled to him/her. These imitations should be both one-handed and two-handed with a mixture of finger and arm movements. If your student cannot imitate, he/she must at least allow you to physically move his/her hands and fingers into position. However, these types of prompts are sometimes difficult to fade and should be used cautiously.

Your student may not fail if he/she is weak in one of these areas, but the training may go much slower.

Total Communication

This program stresses "total" communication. "Total" communication, as used in this program, is when both the student and trainer use as many senses as possible to get the message across. For example, a student may use facial expression and a gesture to tell someone that he needs a drink of water. Another student may use the sign for water and say "wah" to tell someone that he needs a drink of water. A student who uses a communication board may point to a symbol or picture of water and say "dah" to say that he wants a drink. A teacher may simply use facial expression, voice intonation, and speech while saying "GOOD WORK." Or the teacher may routinely sign everything he/she says throughout the day.

When teaching total communication, it is important that both the trainer's use of total communication and the student's use of total communication be directly considered. The addition of these other sensory modalities can be very helpful in teaching severely handicapped students to use and understand not only their special mode of communication, but communication in general.

The Steps of this program are taught to each student in three different ways. The Step is first taught with the trainer both talking and signing. The Step is then retaught with the trainer using signing but not talking. This "sign alone" training is done so that the student can understand other students who sign but cannot talk. Finally, the Step is taught with the trainer talking but not signing. This "speech alone" training is done because the student will need to understand other people who do not know manual signing. The trainer may choose not to do speech alone training with students who have a severe hearing loss.

Training like that described above helps the student to understand the total communication used by others. However, most students must also be taught to use total communication to make themselves better understood by others.

Severely multiply handicapped students have a wide variety of speech skills. Some students may never make speech sounds; others may vocalize, but their vocalizations may be gross approximations; and others may talk, but their speech is very difficult to understand. With students who try to talk, but have speech that is hard to understand, a sign may make their messages easier to understand. The spoken word is supported by the sign.

This program includes procedures used to record, reinforce, and correct the speech of all of these vocally limited students, while at the same time stressing the signs. Depending on the speech skills of the individual student, the trainer must be prepared to deal with a wide variety of combined speech and signed responses. Although the basic procedures included in the manual involve shaping, prompting and putting through, the trainer is offered guidelines on how to use these procedures to simultaneously improve both the student's speech and signing.

Description of the Manual

The program on which this manual is based consisted of four series of individual training steps based on the concepts of reference, control, self-extended control, integration, and reception discussed earlier. The program for training Persons and Things was Part 1 of this series. This manual represents an adaptation of this original Part 1 manual. No adaptation has currently been attempted on the subsequent manuals of this series.

Description of the Training Sessions

Length of Training Session. The length of a training session must vary according to each individual student's skills. If the student is new to the Step or is having a difficult time learning the Step, sessions with repeated trials twice a day are recommended. If the student is bored, tired, or especially inattentive at any time, the trainer should stop the session and try again at another time. As the student's correct responses approach criterion performance, the trainer should distribute the trials into smaller groups and run them several times during the day. The trainer should never feel bound to complete the exact number of trials per session that are shown on the scoring forms.

Description of the Training Sessions. The training sessions should always be relaxed, enjoyable and natural. They should be conducted in a setting where the student would most likely be required and need to use the communication skill he/she is being taught. The trainer should avoid conducting the sessions in a room which is only used for one-to-one training. Use instead a part of a classroom, bedroom, dining room, play area, or kitchen. It is also not important for the trainer and student to be seated at a table. Training may be done sitting on mats on the floor or even standing.

Several Steps in this program involve the student asking to receive an object. It is extremely important that the student be given the opportunity to be involved with the requested object right during the session. For example, if the student has requested a game or toy, all props necessary to use it should be available (basketball and goal; crayon and paper, etc.).

Reinforcement. For each trial in a session, the trainer provides the student with a stimulus, which may be a question, a command, or the presentation of an object or action. When the student gives an acceptable response, the response should be reinforced. The trainer selects the types and amounts of reinforcers to give for correct, shaped, or prompted responses. The Steps are designed so that a correct response produces a natural reinforcement contingency for the student, especially the higher-level Steps. The trainer should reduce the use of tangible reinforcers as the student advances through the program, possibly replacing them with tokens, then praise, and finally, complimentary statements appropriate to the student's performance. How rapidly each student comes under the control of naturally occurring social reinforcers depends on each student's reaction to reinforcement and on the skill of the trainer.

Total Communication Stimulus Conditions. Students who use signing as their primary way to expressively communicate should and must see adults in their environment signing as they talk. In all probability, however, the student will also encounter peers who sign but are not able to talk, and both peers and adults who talk but do not sign. In order to insure that the student has a functional understanding of all three of these conditions, the Steps of the program include direct training with each. This involves the Step being taught three times consecutively with the trainer asking the question (or giving the instruction) in a different way each time (see Table 2). The "b" step is omitted for students with severe hearing losses.

Table 2

Consecutive Conditions
for Training Program's Steps

Step	Stimulus Condition
a	Speech and Sign Together
b	Speech alone
c	Sign alone

Total Communication Training and Correction Procedure. Students will not respond correctly on every trial. A long period of training may be needed for some students before correct responses, or even partially correct responses, are produced. The trainer must be prepared to deal with partially correct response, incorrect response, or no-response situations. Students who accompany their signs with some type of speech response require the trainer to be prepared to deal with a much broader array of combined responses. The trainer must be able to simultaneously teach improved speech and signed behaviors.

The speech skills of severely handicapped students who are taught signing vary widely. Simultaneously improving such varied skills requires the trainer to use different procedures with different students. This manual includes specific procedures to use with students whose speech skills fall into three general categories. Most vocally limited students may be comfortably taught using one of these training and correction procedures (according to their particular speech skills). This manual discusses each of the three procedures as a Level. Any one student may be taught in this program using any of the three Levels' training and correction procedures. The Level A procedure is used with students who rarely make any sounds. The Level B procedure is used with students who may make many sounds but who rarely make different sounds or who rarely sound as if they are saying words. The Level C procedure is used with students who have poor articulation of their speech and who require only a few signing cues to make themselves understood.

The basic procedures used in all of these Levels include shaping, prompting and putting-through. Shaping is the process of reinforcing partially correct responses to help the student toward the completely correct response. Total responses that are more nearly correct than previous efforts are reinforced. Responses that are less accurate than previous efforts are treated as incorrect. Prompting consists of providing the student with additional clues to assist a correct response. Putting-through consists of helping the student make the correct response (e.g., moving arm and hand to point to the correct object). Prompting and putting-through should be used with extreme caution because the student may become totally dependent upon them.

Criterion Performance. Criterion performance is the level of success a student must attain to be competent in the skill the Step is training. Unless otherwise specified, a student can exit from any Step in the program or from any of several phases within the Step, by either of two criteria:

1. Achieving 80 percent or more correct (or acceptable) responses within a training session. (Training sessions are defined as the completion of all trials included on a scoring sheet for a particular Step.)

2. Producing 12 consecutive correct (or acceptable) responses within a series of trials in a training session.

Guidelines for Individual Training Steps

Each Step includes a description of the Training Goal for the Step, a list of Training Items needed, a description of Procedures to be used, Training Instructions, and a set of instructions used in Programming for Generalization. The training Steps also include two types of Scoring Forms for recording the student's responses in each session and Summary Forms to record progress across sessions within the Step.

Training Goal. This section describes the specific skills or concepts to be trained in the Step and tells how the Step is integrated with a previous Step.

Training Items. Suggestions for selecting stimulus materials are included for each Step. The actual materials and props needed in this manual should always be selected with each individual student's preferences, age and needs in mind.

Substituting pictures for the actual items is strongly discouraged because this decreases the authenticity of the training environment and reduces the probability that students will apply their new learning elsewhere.

The prepared scoring forms sometimes list items appropriate for that Step. However, even in these cases the trainer should only use those items if they are appropriate for that individual student.

The following list of suggested training items will assist trainers in selecting items for the initial Steps in the program:

FOOD: cookie, pop, apple, candy, gum, juice,
crackers, chips, peanuts, milk

CLOTHING: pants, dress, shoe, shirt, sock, coat,
cap, pajamas, mittens, hat, watch

TOYS: ball, car, top, doll, puzzle, block, drum,
gun, ring, bubbles, record

MISCELLANEOUS: chair, table, TV, spoon, pan, cup
soap, toothpaste, towel, comb, brush,
paper, pencil, perfume, lotion

The use of body parts as objects to be labeled in this signing program is not recommended because most manual signs for the labels are simply pointing to the referred body part. Therefore, in training, when the trainer asks "What's that?" and touches or points to the body part in question, all the student needs to do is imitate the trainer's movement. If it is important for the student to learn the label for a body part, it is suggested that the trainer use a large doll or manikin to refer to.

Procedures. This section includes instructions for giving the Skill Test (if the Step has one) and the proper correction procedure to follow. This section also includes a flow chart indicating the order of training to proceed through for that Step.

Training Instructions. This section gives specific instructions for training the skill which is the goal for the particular Step. It gives the order in which items are to be presented, what to sign and say to the student and the response to expect for training all three parts (a, b, and c) of the Step.

The signed instructions the trainer gives to the student are always printed in small underscored letters (what that). The spoken instructions are always printed in capital letters (WHAT'S THAT?). Instructions which are to be given in sign and speech together are printed one after the other with a slash mark between (what that/WHAT'S THAT?). The desired or example response for the student is typed just like the trainer's (ball/BAH). Where appropriate, this section also explains how the training items are arranged.

Programming for Generalization. Many Steps include a generalization section with instructions for extending a newly learned skill or concept to the student's whole environment. This is necessary because many students will use language only in the training environment or with the trainer. It is further necessary because many environments are not aware of the use of communication boards and must be taught to understand the system just as the students do. Ordinarily, these generalization procedures are administered by the student's parents, parent-surrogates, teachers, or other significant persons who have daily contact. Their purpose is to increase use of the newly taught skill with persons other than the trainer and in environments other than the training area. Additionally, the generalization procedures help keep other persons aware of the student's progress. This makes them more aware of the student's skills, so that those skills can be properly recognized and reinforced. Past training has shown that this part of a student's programming may be the most important. In order to achieve spontaneous communication, emphasis must be placed on this section of training. Generalization programming for one Step may be completed at the same time in-session training is being initiated on the next Step.

Without the use of the suggested special efforts to promote the handicapped child's use of newly acquired language skills outside the training setting, it is quite likely that generalization will not occur. There are a number of different strategies one may implement to promote generalization from training to functional use of language to communicate in everyday life settings. Some of these are discussed below.

Selecting Appropriate Content. It is important to choose words and word combinations that will be needed by the student in his everyday environment. Words that are functional for the child are most likely to be used and reinforced. In some Steps the specific words to be taught are to be selected by the teacher. They should include words relating to activities or objects of interest to the student. They should also be objects which he can use frequently.

Using Sufficient Examples. If teaching a noun label, it is important to use several stimulus objects during training. For example, if teaching the symbol shoe, one should use a number of different shoes in the training sessions. This will make it more likely that the child will be able to correctly use shoe with other shoes he sees in other places. When teaching a grammatical form such as "I want ____.", it is important to teach the child to use "I want" with a number of items. As his vocabulary grows, he will have a sentence form he can use to request new items.

Varying the Verbal Stimuli. Ultimately, the child should be able to respond to a variety of different verbal stimuli which may sound different but which have the same meaning (e.g., "Show me ____", or "Point to ____"). Care must be taken with some students not to do this too early. In most cases it will be advisable to begin training with a consistent verbal stimulus and begin varying it only after the response has been acquired.

Varying Settings. Students should learn to use a skill in more than one environment. For example, a student may be taught to make the signs for the three-word sentence "I want object" in the classroom, the lunch room or the home. Some noun labels are appropriate to the bathroom, others to dining areas, others to the classroom. The child should be trained to use them there, either initially, or as soon as they are acquired in the first training setting.

Train for Sufficient Duration. It is important not to discontinue training too soon after a skill is acquired. In general, we feel more comfortable with a criterion performance which is spread over two or three days rather than a single day at a high level of accuracy. We do not recommend continuing on and on with a boring task which the child has already acquired, however. Thus the trainer will want to work to criterion, but then continue some maintenance trials while training other things. The trainer may also build the acquired skill into some new task and work on it in conjunction with the new task. The general point is that skills taught and never used are likely to be forgotten. They need to be taught long enough to be well learned, and then put into use so that they will be remembered.

Schedule of Reinforcement. Behaviors taught under a continuous schedule of reinforcement will be acquired more quickly. It may be necessary to use extrinsic reinforcers to provide adequate motivation to learn. We would encourage the trainer to use continuous reinforcement initially and to be sure that they are providing some consequence which is reinforcing to the student. Once the skill is acquired, we recommend gradual fading of the extrinsic reinforcers and a shift to the natural consequences of the behavior.

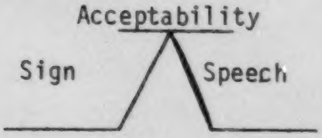
Examples of specific ways of producing generalization will be provided with each training step.

Scoring Forms. Each Step includes two types of scoring forms designed specifically for the training sequence in the Step. The scoring forms are labeled Type 1 and Type 2. Type 1 forms are designed similarly to those used in the original speech manual. One form is used per session. Each page of the Type 2 form is designed to be used for several consecutive days however.

The student's responses are recorded in the same way on both Type 1 and Type 2 forms. A special scoring grid is used which allows the signed part of the response, the spoken part of the response and the overall intelligibility of the "total" response to be scored individually for each trial.

Figure 1

Example Scoring Grid



The scoring forms provided for each Step and for phases within the Step are working aids as well as data records. For example, some Steps require that the stimulus (S^D) presentations be randomized. For these Steps the numbers are arranged on the scoring form in random order. To use the form, simply assign one number on the scoring form to each item to be trained and present them in the order that the numbers appear on the scoring form.

On certain other Steps a particular order of presentation of the S^D (stimulus) makes it easier for the student to grasp the concept involved. Here again, the scoring form serves as a working aid.

The Type 1 Scoring Forms are quite simple to use and are self-explanatory. This type of form may be best to use if the trainer is new to the program, or Step, as it provides more detailed information about how to conduct each trial. The Type 2 Forms may need to be studied in more detail before the trainer can use them.

The following instructions are given for using the Type 2 multi-session self-graphing scoring forms.

1. Select the scoring form for the Step to be trained.

2. Write the student's and trainer's names on the blanks provided at the top of the page.

3. Number the page. If the student requires more sessions than the form provides to achieve criterion, number each successive page accordingly for each Phase or Step.

4. If applicable, circle the appropriate Phase on the form's title line.

5. Record the Speech Level used with the student.

6. List any items used in the training.

7. Notice the description of the trainer's stimuli (listed first, in upper case letters) and the student's expected response (listed second, in lower case letters and quote marks). If the Step uses a two-part task, the first stimulus/response set is listed as "a" and the second set as "b." If the student is required to answer with one of several responses to either task, each response is assigned a code letter or number.

8. One column of scoring grids (i.e.,__/__) represent one session's data. Go to the bottom of the first column of grids and write the session's date in the first blank.

9. Notice whether the form has session "DATE" blanks for each column or for each two columns. If two columns are used, check to see if the first column, "a," is connected by an arrow to column "b." If so, this indicates that the column "b" task always follows the column "a" task and that both tasks are considered one completed trial. That is, the task in column "a" is completed first followed immediately by the completion of the task in column "b."

10. Notice the presence or absence of a vertical column toward the left side of a form entitled "STIMULUS PRESENTATION."

    If the column is absent, the student is always given the same stimulus and is always expected to give the same response for any one data column.

    If the column is present, this indicates the student is given a scrambled stimulus presentation and is expected to respond according to that scrambled order within the same data column. The column uses the codes assigned earlier (see instruction number 7). The trainer must refer to these codes before each trial to determine what items to use and/or what instruction or question to present.

11. Training is initiated by presenting the trial indicated by the first (lowest) set of scoring lines (_/‾_) on the column and recording the responses on that first set of lines. It is also possible to begin the first trial at the top of the column and progress down, or to begin at some other section of the column.

12. Training continues by presenting the trials consecutively up or down the column, recording each trial in turn.

13. At the completion of the training session, count the total number of responses which would count toward criterion.

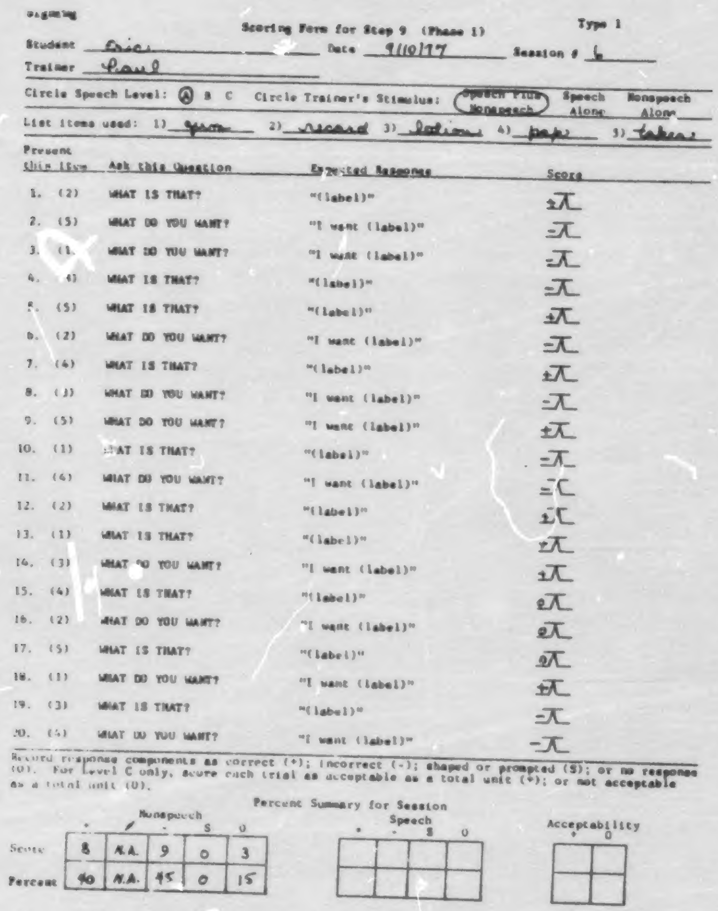
14. Referring to the far left vertical column entitled "NUMBER CORRECT," select the number to be graphed (from instruction 13) and circle the scoring grid corresponding to this number. As successive sessions are graphed, connect each of the session's circled data points. If the "Number Correct" is zero, circle the "X" under the appropriate column. If the student must have both responses in a chained response correct to count toward criterion, the trainer may circle the area between the columns of data for that session.

15. The trainer may want to graph each part of the grid's data separately (speech, sign, and acceptability). In that case the use of colored pens, or separate graph symbols may aid in interpreting the graph's data.

16. Write and date any relevant comments on the back or bottom of the form.

17. Begin the next session with the same page by dating the next column and repeating the procedure explained above. Figures 2, 3, and 4 indicate example data recorded on Types 1 and 2 scoring forms.

Summary Forms. Summary forms are provided to chart progress across sessions. Data from either Type 1 or Type 2 forms may be recorded on the summary forms. For students who are receiving training using the Level A Total Communication Procedure, only the percent of correct signs are recorded. For Level B students space is provided to summarize the type of speech responses the student used during that Step. Space is provided for recording the date when training was started for that part of the Step, the date when criterion performance was reached, and the total number of sessions needed to achieve criterion performance. Use a new summary form to record the three parts (a, b, and c) of the Step's training. Be sure to always write under "Trainer's Stimulus Condition" which of the parts is represented (i.e., speech plus sign, speech alone, or sign alone).



[illegible]

Scoring Form for Step 9 (Phase 1) Type 1

Student Eric Date 9/10/77 Session # 6

Trainer Paul

Circle Speech Level: [✓ A] B C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

List items used: 1) gum 2) record 3) lotion 4) paper 5) tokens

Present this Item		Ask this Question	Expected Response	Score
1.	(2)	WHAT IS THAT?	"(label)"	+
2.	(5)	WHAT DO YOU WANT?	"I want (label)"	−
3.	(1)	WHAT DO YOU WANT?	"I want (label)"	−
4.	(4)	WHAT IS THAT?	"(label)"	−
5.	(5)	WHAT IS THAT?	"(label)"	+
6.	(2)	WHAT DO YOU WANT?	"I want (label)"	−
7.	(4)	WHAT IS THAT?	"(label)"	+
8.	(3)	WHAT DO YOU WANT?	"I want (label)"	−
9.	(5)	WHAT DO YOU WANT?	"I want (label)"	+
10.	(1)	WHAT IS THAT?	"(label)"	−
11.	(4)	WHAT DO YOU WANT?	"I want (label)"	−
12.	(2)	WHAT IS THAT?	"(label)"	+
13.	(1)	WHAT IS THAT?	"(label)"	+
14.	(3)	WHAT DO YOU WANT?	"I want (label)"	+
15.	(4)	WHAT IS THAT?	"(label)"	0
16.	(2)	WHAT DO YOU WANT?	"I want (label)"	0
17.	(5)	WHAT IS THAT?	"(label)"	0
18.	(1)	WHAT DO YOU WANT?	"I want (label)"	+
19.	(3)	WHAT IS THAT?	"(label)"	−
20.	(4)	WHAT DO YOU WANT?	"I want (label)"	−

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

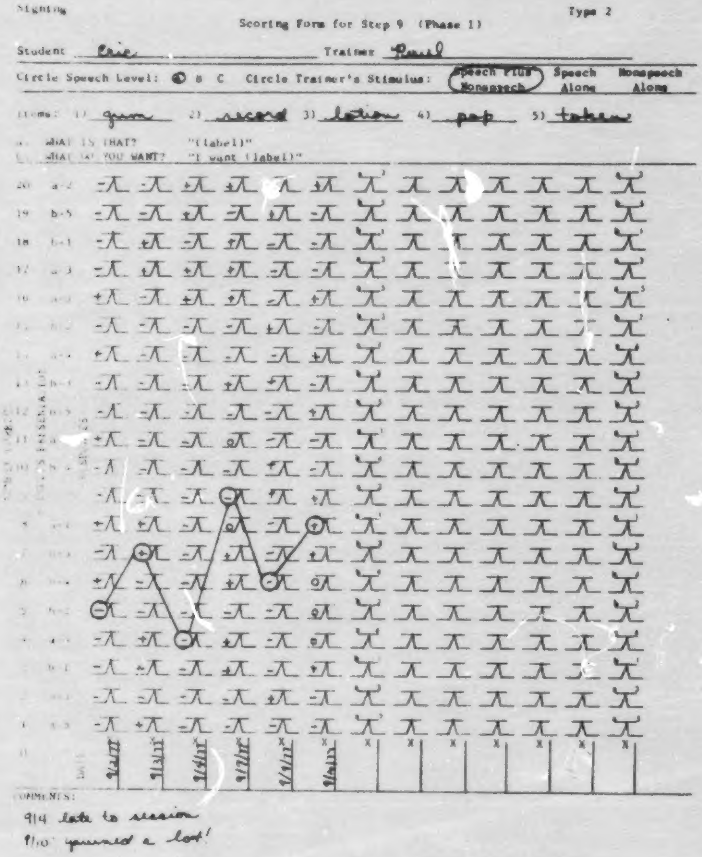
Percent Summary for Session

	Nonspeech +	/	−	S	0
Score	8	N.A.	9	0	3
Percent	40	N.A.	45	0	15

	Speech +	−	S	0
Score				
Percent				

	Acceptability +	0
Score		
Percent		

Figure 2: Example Type 1 Scoring Form completed.



Signing

Type 2

Scoring Form for Step 9 (Phase I)

Student Eric Trainer Paul

Circle Speech Level: [✓ A] B C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) gum 2) record 3) lotion 4) pop 5) token

a. WHAT IS THAT? "(label)"

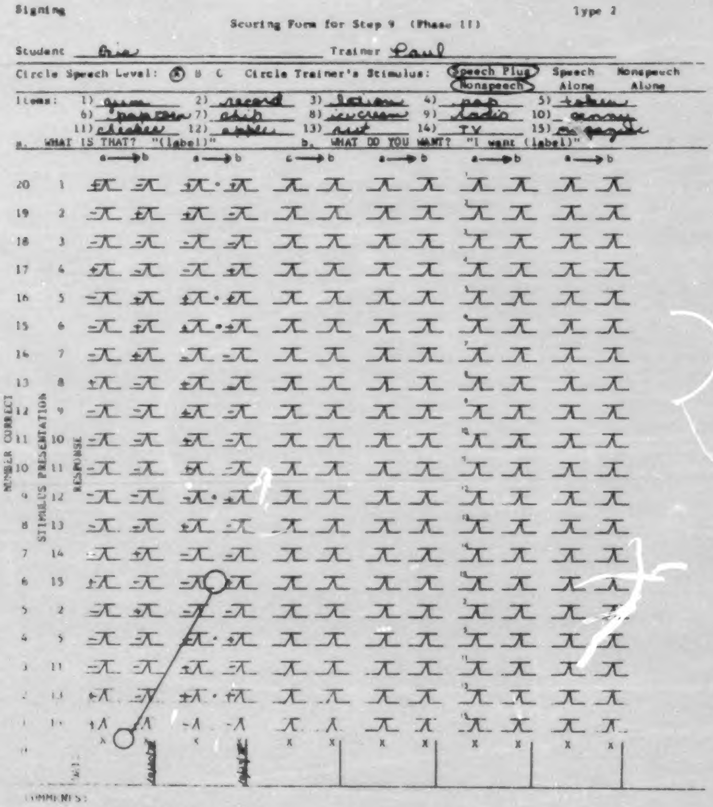
b. WHAT DO YOU WANT? "I want (label)"

COMMENTS:

9/4 late to session

9/10 yawned a lot!

Figure 3: Example one part task, Type 2 Scoring Form completed.



Signing

Type 2

Scoring Form for Step 9 (Phase II)

Student Eric Trainer Paul

Circle Speech Level: [✓ A] B C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) gum 2) record 3) lotion 4) pop 5) token
6) popcorn 7) chip 8) ice cream 9) radio 10) penny
11) cheese 12) apple 13) nut 14) TV 15) magazine

a. WHAT IS THAT? "(label)" b. WHAT DO YOU WANT? "I want (label)"

COMMENTS:

Figure 4: Example two part task, Type 2 Scoring Form completed.

TOTAL COMMUNICATION TRAINING AND CORRECTION PROCEDURES

LEVEL A --- NONSPEECH ONLY

The goal of this Level of training is to establish functional communication through signing only. Level A students seldom make speech sounds. Communication for these students will depend entirely on their signing skills. The trainer will directly train the student's nonspeech skills and need not work on speech at all.

Placement

The students who are placed in this Level are usually those who fall under one or more of the categories listed below:

1. Have a severe or profound hearing loss;
2. Are over the age of 16;
3. Make no sounds voluntarily;
4. Make no sounds during vocal stimulation;
5. Have severe motor handicaps such as paralysis or spasticity involving their speech mechanisms (lips, jaw, chest muscles, etc.);
6. Can produce speech sounds only with great difficulty because of spasticity, athetosis, or paralysis.

Data Collection

Recording is completed on the communication board responses (or pointing responses) for each trial only. The nonspeech response is scored on the lower left of the grid (x⋀_) and all other grid areas remain blank. A trial should be recorded on the data sheet each time the student is provided with a stimulus (question, command, or object). The trainer may indicate the topography of the response by recording a (+) for correct, a (-) for incorrect, or a (0) when the student does not respond. If a prompted or partially correct response was reinforced, an (S) may be recorded.

More specifically, the different symbols for this Level mean the following:

(+): The student correctly signed the word(s) clearly enough so a listener not familiar with the student's skills would understand the response out of context. The student should respond within 5 to 10 seconds of the trainer's stimulus without having received any prompts or cues from the trainer.

(S): This score is recorded any time the trainer reinforces a partially correct response, or if the response was prompted or cued. For example, the student may have required some help (additional cue or prompt) to complete a partially correct response, or he may have required physical help from the trainer to complete the correct response. This score may be used also if the student independently gave a better response than had been given before but it was still not clear or quick.

(-): Within 5 to 10 seconds, the student produced an incorrect sign. The student may have given a sign out of context, signed more than the word(s) needed; given another type of response such as pointing to an object instead of giving the sign; given a sloppy, unintelligible sign; resisted some type of prompt; or did any of the above after being given a cue or prompt. This score is also recorded any time the trainer judges that a previously shaped (reinforced) response is no longer acceptable and a slightly "more correct" response will be required in the future (response shaping).

(0): The student did not attempt to sign anything; or responded after 5 to 10 seconds. Five to 10 seconds is a rule-of-thumb measure to use. For some students you may want to wait a little longer. For example, it may take a motorically impaired student 15 seconds to respond. If at the end of 5 or 10 seconds the student has not begun to respond, a (0) should be scored.

Training and Correction

Students will not respond correctly on every trial. A long period of training may be needed with some students before correct responses, or even partially correct responses, are produced. The trainer must be prepared to deal with partially correct responses, incorrect responses, and no-response situations.

The basic procedures used in this manual were described briefly in the original manual (Guess, Sailor, and Baer, Functional Speech and Language Training, 1977). Unless the trainer is familiar with shaping behavior and is able to apply the techniques to the student's responding on every trial, it is unlikely that much success will occur. When used correctly, shaping and prompting allow some students to learn responses they would not have been able to otherwise. One reference which should be a helpful resource to a person unfamiliar with these procedures is Hall, R.V., Managing Behavior, Volume 2, Behavior Modification: Basic Principles, Lawrence, KS: H & H Enterprises, Inc., 1971.

Figure 5 shows how training proceeds in the Steps of this manual for students in Level A. Generally, the trainer should reinforce all correct, or improved responses (if shaping or prompting is being used), and not reinforce incorrect or no responses. If the student does not respond, or

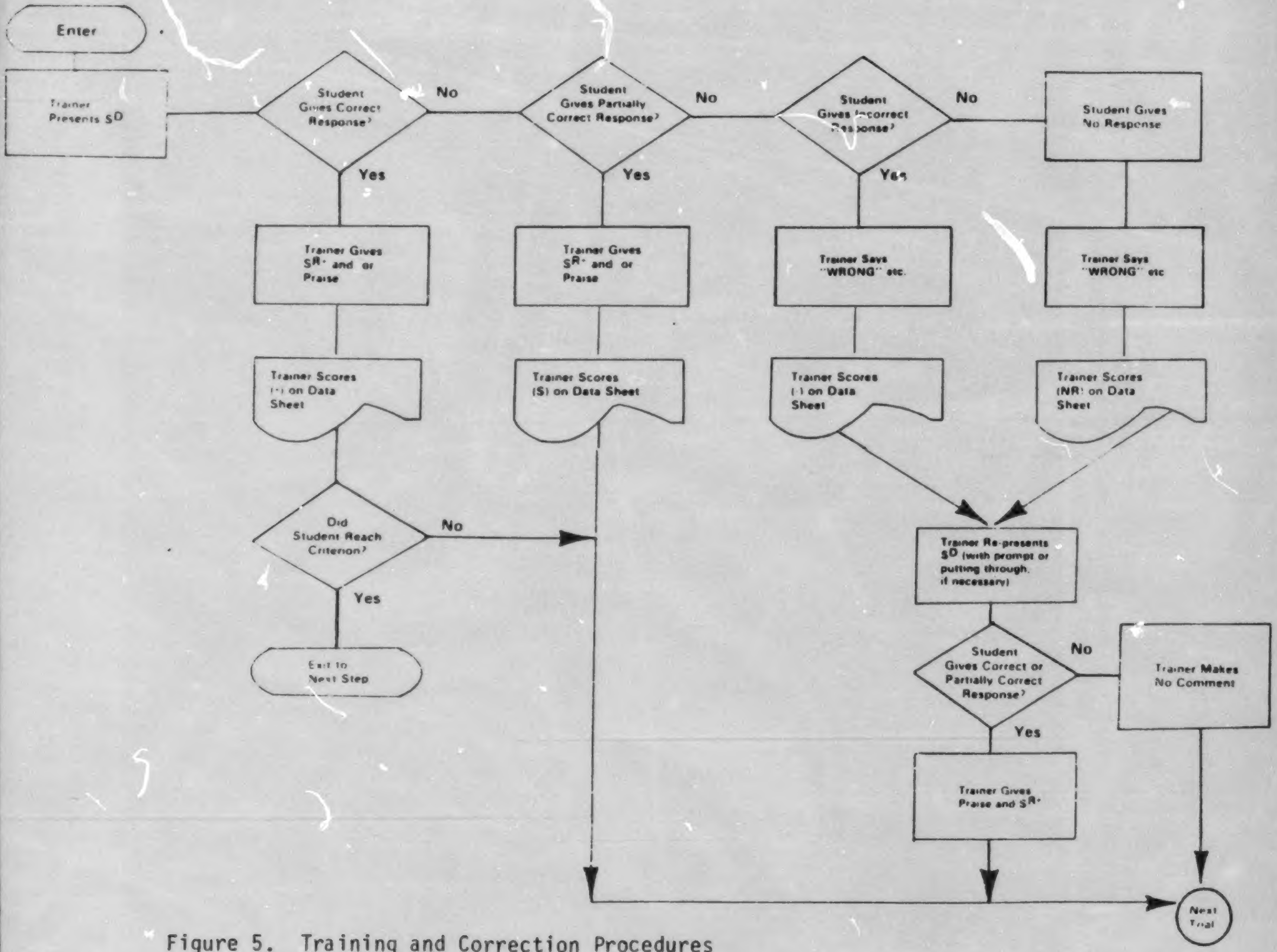

Enter
Trainer Presents S^D
Student Gives Correct Response?
No
Yes
Student Gives Partially Correct Response?
No
Yes
Student Gives Incorrect Response?
No
Yes
Student Gives No Response
Trainer Gives S^R+ and/or Praise
Trainer Gives S^R+ and/or Praise
Trainer Says "WRONG" etc.
Trainer Says "WRONG" etc
Trainer Scores (+) on Data Sheet
Trainer Scores (S) on Data Sheet
Trainer Scores (-) on Data Sheet
Trainer Scores (NR) on Data Sheet
Did Student Reach Criterion?
No
Yes
Exit to Next Step
Trainer Re-presents S^D (with prompt or putting through, if necessary)
Student Gives Correct or Partially Correct Response?
No
Yes
Trainer Makes No Comment
Trainer Gives Praise and S^R+
Next Trial

Figure 5. Training and Correction Procedures for Level A Students

responds incorrectly, the trainer should show him/her the right answer and then ask the question (or give the instruction) again (stated as "re-present SD" on the Figure).

Criterion Performance

Criterion performance, as discussed earlier, is the level of correct responding which indicates that the student has successfully learned the new skill. Criterion for Level A training is identical to that of the speech program. That is, unless otherwise specified, a student can exit from any step in the program, or from any of several phases within the Step, by either of two criteria:

1. Achieving 80 percent or higher correct signed responses independently (i.e., without prompting) within a training session. (Training sessions are defined as the completion of all trials included on a Type 1 scoring sheet or one column for a Type 2 scoring sheet.)[1]

2. Producing 12 consecutive correct pointing responses within a series of trials in a training session.

The student does not move from one Level to another as he/she completes Steps or Phases of the program. If the trainer has taken the time to appropriately assess the student's vocal skills before selecting the Level to be used, he/she will probably remain in the same Level through several or all Steps of the language program.

LEVEL B --- ENCOURAGE SPEECH

The goal of this training Level is to establish functional signing *accompanied by some type of vocalization or verbalization*. Students placed in this Level are those who make some speech sounds, but whose main source of intelligibility will rely on the signing. Their limited speech may merely serve as a signal that they are communicating. Although they may exhibit a variety of *vocal* skills, their prognosis for independent or intelligible *verbal* speech is either poor or very long term. Each time the student gives a sign he or she will be either encouraged or required to vocalize.

The type of vocalizations used by the students may vary widely. For example, some students will make the same sound(s), like "bah," for each sign they make. If they were signing the sentence, "I want crayon," they may say "bah bah bahbah," or perhaps only "bah." Other students may use some specific sounds to mean certain words. For example, one student always said "puhpuh" when signing the word puzzle and never used that two-syllable vocalization when signing any other word. Other students will have a standard group of sounds and syllables they use randomly regardless of what sign they are using.

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[1] See an earlier page of this manual for a discussion of the two types of scoring sheets.

Although the emphasis of this training is on the sign response, the trainer should attempt to concurrently develop the student's speech and signing through prompting and shaping.

Placement

The trainer may use Level B procedures for students exhibiting behaviors like those listed below.

1. Vocalizes at a fairly high rate spontaneously during free play and/or structured activities.
2. Vocalizes more frequently or more clearly during vocal stimulation activities.
3. Spontaneously vocalizes when talked to.
4. Spontaneously vocalizes signing during training or assessment.
5. Has shown slow progress in vocal imitation training.

Deciding Target Speech Responses

The first session(s) of each new task or Step would be spent with the trainer paying particular attention to, but only observing, the student's speech responses. During this time the trainer may wish to reinforce responses contingent on only the pointing responses. After observing how the student uses speech with this particular response, the trainer will know better what may be required and what should probably only be encouraged.

"Required" speech for Level B students means that he/she must say something each time they sign sometime during an utterance in order to be reinforced. Some students can be required to say something for each sign they use in a sentence, others can be required to say only one sound for a sentence. Some students will be required to use specific syllables with certain words (saying "yuh" while signing "yes"); others will be required simply to make any sound while they sign. Generally, a trainer may require (i.e., make reinforcement contingent on) paired vocalizations when a student is spontaneously using a vocalization with the sign(s) during at least 25% of the trials for that word, provided the trainer continues to provide a high rate of vocal stimulation for that response.

"Encouraged" speech for Level B students means that, although it would be nice to have a vocal response, reinforcement for that trial is not contingent (dependent) on a vocalization accompanying the sign. However, through vocal stimulation (to be described later) the student is encouraged to eventually pair a vocalization to that sign. Generally, a trainer should encourage vocalizations for all signs that are not currently accompanied by a sound.

Most Level B students will have a mixture of required and encouraged vocalizations.

Many Level B students will also have a mixture of specific and nonspecific paired vocalizations they use with their signs. Like the student above who said "yuh" as she signed "yes," specific vocalizations are those which are used by that student to "mean" that word. This student will use that syllable consistently when she signs yes and will rarely say "yuh" for any other word. Because "yuh" is a required, specific vocalization, this student would not be reinforced if she signed "yes" and said "oh."

Trainers are cautioned to take care is assigning specific vocalizations to their students' signs. Be sure to rely heavily on what the student's present skills are. For example, do not require a student to use the vocalization "ka" for candy if you have only heard him say it once with the sign. Encourage him to use it during vocal stimulation but do not require it during a trial until he is pairing it on his own more frequently.

Vocal Stimulation

Vocal stimulation activities are extremely important for Level B students. These activities are used to encourage new or prompt better speech from the student during training sessions. The stimulation activities may occur before, after or periodically during the session, but must occur at some time during each session. Take cues from the student as to when this should take place. The student may indicate stimulability by producing a better vocal response during the correction procedure. If this occurs, the trainer may wish to continue working on the speech (paired with the nonspeech, whenever possible) for a few minutes before beginning the next trial.

The actual activities used to stimulate vocalizations will vary depending on the age and skills of each student. Students who only have a few signs they pair with vocalizations should be stimulated to vocalize with the other signs as well. Students who use very gross vocalizations should be encouraged to use clearer syllables or perhaps to vocalize with the number of syllables contained in a word or the number of words in a sentence. Even students who use specific vocalizations or word approximations can be stimulated to use better articulated sounds.

The trainer may use vocal play, give "speech and sign models" for imitation, or perhaps just play with a desired object to stimulate vocalization. Some students will be stimulated to make any sound even without signing. Other students may be given a speech model paired with a nonspeech model repeatedly for imitation.

Reinforce all vocalizations during this activity. Especially reinforce vocalizations during this activity which are paired with a sign. Do not, however, pressure the student to vocalize, or punish him or her for remaining quiet. These stimulation activities should be a pleasant, motivating time for the student.

The stimulation should probably last no more than a minute at a time but may occur several times during a session.

The trainer need not collect any data during these stimulation activities.

Data Collection

During Level B training, recording is completed for both response categories for each trial. The signing component of the response is scored on the lower left of the grid (X⋀), and the speech component is scored on the lower right of the grid (⋀X). The top line on the grid may remain blank.

The pointing responses for each trial are recorded as defined earlier in the first Level:

(+): The student signed clearly enough that a listener not familiar with the student's skills would understand the response out of context. The student should respond within 5 to 10 seconds of the trainer's stimulus without having received any prompts or cues from the trainer.

(S): This score is recorded any time the student gives a partially correct response, which is as good or better than earlier responses, or if the student responded correctly to a prompt or cue. For example, the student may have required some help (additional cue or prompt) to complete a partially correct response or may have required physical help from the trainer to complete the correct response. This score may be used also if the student independently gave a clearer response than had been given before, but it was still not intelligible.

(-): Within 5 to 10 seconds the student signed incorrectly. The student may have given an out-of-context symbol card; pointed to more than the symbol cards needed; given another type of response such as pointing to an object instead of naming it; given a sloppy unintelligible point; resisted some type of prompt; or did any of the above after being given a cue or prompt. This score is also recorded any time the trainer judges that a previously shaped (reinforced) response is no longer acceptable and a slightly "more correct" response will be required in the future (response shaping).

(0): The student did not attempt to sign anything; or responded after 5 to 10 seconds.

The speech responses for each trial during Level B are recorded using basically the same type of definitions:

(+): This score is rarely used to record a speech response in Level B. However, it would be used any time the student said a word clearly enough that a novice listener would understand. The student must have responded independently within 5 to 10 seconds of the trainer's stimulus.

(S): This score is the most frequently used speech score in Level B. It may represent any of the following: a speech approximation which is as good or better than earlier responses; an imitated speech response; a prompted speech response; any unintelligible nonconflicting vocalization which accompanies a point, assuming it is the student's best attempt; or a specific but unintelligible vocalization which accompanies a point, again assuming it is a "best attempt."

(-): Within 5 to 10 seconds the student said something incorrectly. In Level B an incorrect speech response is usually one of three responses. First, a (-) may be recorded any time the trainer judges that the vocal response given was not as clear as some used earlier. Or a (-) may be recorded when a student failed to use a required specific vocalization with a certain sign. Finally, a (-) is recorded any time a student uses a speech approximation to accompany a sign which sounds very much like another word, that is, a conflicting vocalization.

(0): The student did not say anything or did respond but after 10 seconds.

Because two response categories are recorded, there are 16 different possibilities of response combinations the student may give in this Level of training (see Table 3a). Examples of this Level might be that after having been shown a ball, the student might clearly sign ball while using the speech approximation, "buh." This response would be recorded (+⋀S). Or the student might clearly sign shoe (when shown a ball) and use no speech response. This trial would be scored as (-⋀0).

For students in Level B the (⋀S) speech score will probably reflect the likely target response to be strengthened for most training. The trainer might be constantly aware of how the (⋀S) score is applied to each student's responses from session to session. Once each week or so, the trainer should record exactly what the student said for each sign. Written notes should be kept on the student's summary sheets indicating what the (S) score represents for each task and how the response has improved during training. The trainer will learn through observing and working with each student what the student is capable of producing.

Training and Correction Procedure

Follow the procedure shown in Figure 6 when training students in both

Table 3a: Response Combinations Possible in Level B.

	SPEECH			
NONSPEECH	+	S	-	0
+	+,+	+,S	+,-	+,0
S	S	S	S	S,0
-	-,+	-,S	-,-	-,0
0	0,+	0,S	0,-	0,0

the speech and nonspeech modes concurrently. The use of this correction procedure allows for development of both the speech and nonspeech responses within the same training session.

The far left-hand box of Figure 6 indicates the presentation of a discriminative stimulus (S^D) which might be a question (e.g., WHAT IS THAT?), a command (e.g., POINT TO THE CAR), or the display of an object or action (cutting, pasting). It is possible (but not likely) that a student in this Level will speak and sign intelligibly for a few words. If this occurs, the trainer should reinforce (S^{R+}) the student and score (+⋀+) indicating correct responses took place in both modes. The trainer then observes whether the correct responses completed the criterion level of performance for the Step or for a Phase within the Step. If it did, the student is advanced to the next Phases within the Step or is moved to the next Step in training. If not, the trainer moves to the next trial on the scoring sheet and presents the next S^D.

On many occasions the student may use an intelligible and correct sign, but the speech response is judged to be only partially correct. For example, a student may clearly sign popcorn while saying "puh" or "puhpuh." Or, a student may sign shoe perfectly and say "uh." These responses should also be reinforced and may also count toward criterion. The trainer should score (+⋀S) on the data sheet for these responses.

Conversely, the student may give a partially correct sign simultaneously with some type of a partially correct speech response or (although unlikely) with a clearly articulated speech response. Here the trainer must decide whether the partially correct nonspeech response is an improvement over previous attempts or whether it is the same or worse than the previous efforts. If the partially correct sign is an improvement, the trainer reinforces and praises the student, thus shaping the student toward a more correct response. In this case the trainer scores (S⋀__) (for "shaping" of the point), and either (_⋀+) or (_⋀S) to note the speech response which occurred with it. Thus, a completed interval appears as (S⋀+) or (S⋀S). These responses would not count toward criterion.

Depending on the speech skills of a student, he/she may use a correct,

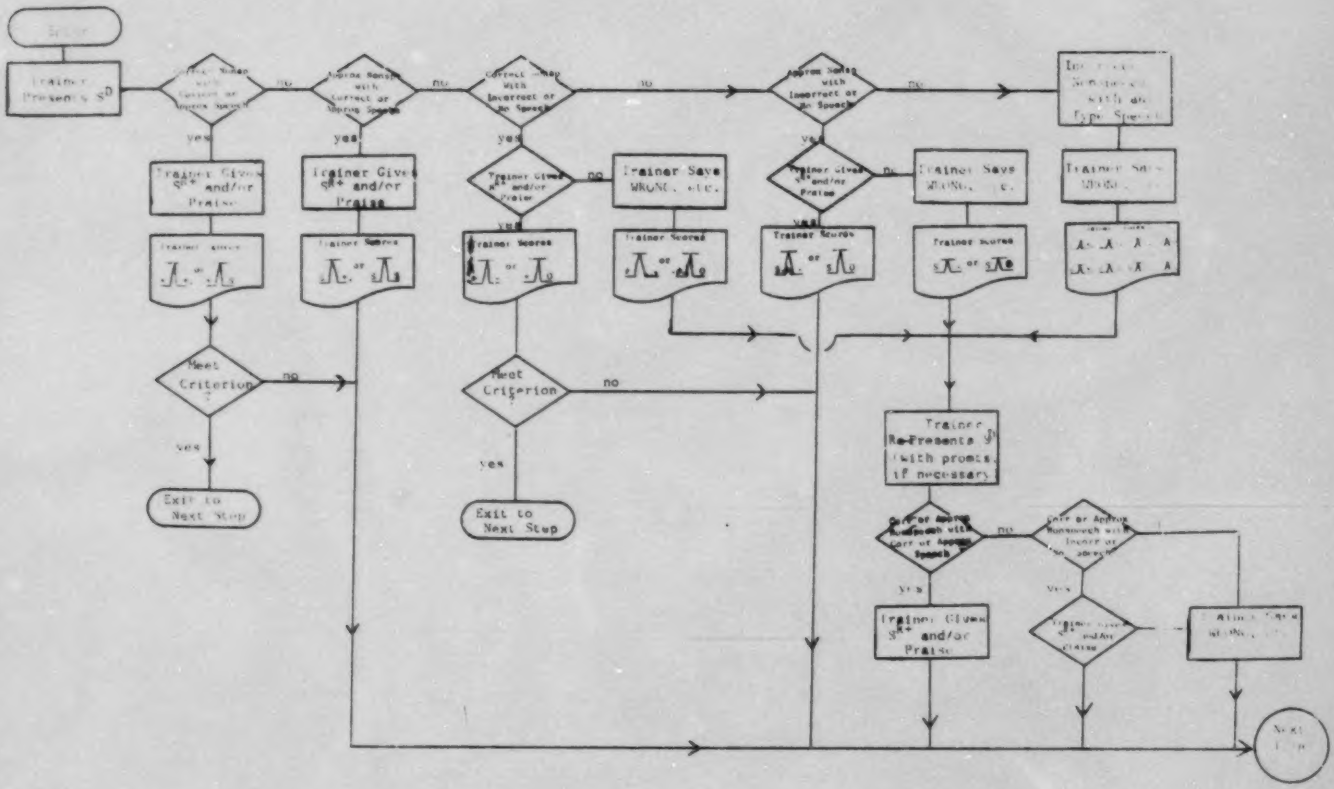
Trainer Presents S^D
Correct Nonsp with Correct or Approx Speech
no
yes
Approx Nonsp with Correct or Approx Speech
no
yes
Correct Nonsp With Incorrect or No Speech
no
yes
Approx Nonsp with Incorrect or No Speech
no
yes
Trainer Gives S^R+ and/or Praise
Trainer Gives S^R+ and/or Praise
Trainer Gives S^R+ and/or Praise
no
Trainer Says WRONG, etc.
Trainer Gives S^R+ and/or Praise
no
Trainer Says WRONG, etc.
Trainer Says WRONG
Trainer Scores
or
Trainer Scores
Trainer Scores
Trainer Scores
Trainer Scores
Meet Criterion ?
no
yes
Exit to Next Step
Meet Criterion ?
no
yes
Exit to Next Step
Trainer Re-Presents S^D (with promts, if necessary)
Corr or Approx Nonspeech with Corr or Approx Speech
no
yes
Corr or Approx Nonspeech with Incorr or No Speech
yes
Trainer Gives S^R+ and/or Praise
Trainer Gives S^R+ and/or Praise
Trainer Says WRONG, etc.
Next Step

Figure 6: Training and correction Procedure for Level B Students.

or approximated sign, without saying anything, or a speech response that is worse than previous attempts. In these cases the trainer must judge if the responses should be reinforced. Whether or not these responses are reinforced is dependent on the skills and past responses for each student. If the student has taken a long time to finally sign correctly, or show even modest improvement, the trainer may wish to reinforce the response even though the speech component was not acceptable. Other students will vocalize with most of their pointing responses, but they will use one or two signs which are never accompanied with a sound. If these signs are not reinforced, the students are likely to stop using the nonspeech part of the response as well. When the trainer chooses to reinforce these responses, they are scored as (+⋀0), (S⋀0), (+⋀-) and (S⋀-) respectively. If, however, a student has always used speech with a particular sign or has recently begun to use better speech attempts with the sign, the trainer may want to reinforce the occasional trial where no speech response occurred. If the responses are not reinforced, the trainer scores (S⋀0) and (S⋀-) as shown before, or ($\not+$⋀0 and ($\not+$⋀-) to indicate these trials may not count toward criterion. The correction procedure is then initiated.

> NOTE: The slash through the nonspeech score is a cue to the trainer to not count this trial when tallying the sessions number correct at the completion of the session.

All other types of responses shown in Figure 6 should not be reinforced. These responses involve combinations which include either an incorrect or no sign. A response with an incorrect or missing sign is not reinforced, regardless of the speech produced. Incorrect responses may include mislabeling an object or action, using an incorrect pronoun, adjective, preposition, using improper syntax in the more lengthy responses, pointing to the wrong object (in the case of certain receptive training skills), or giving a partially correct pointing response which is not better or is worse than the previous responses.

No-response is scored (for either response mode) if the student does not respond within 10 seconds of the S^D presentation in that mode.

When incorrect or no-responses occur, the trainer must say something to the student, indicating that the response is not correct. Such verbal statements as WRONG, LET'S TRY IT AGAIN, are encouraged. Loud, punitive or derogatory statements (e.g., NO) should not be used. Usually, a flat, matter-of-fact tone of voice clearly different from the delight and excitement the trainer conveys after correct or partially correct responses is sufficient.

As shown in Figure 6, the trainer scores minus (-) for an incorrect response and (0) for a no response on the left of the grid for these sign components.

Following the re-presentation of the S^D, the trainer should praise the student (and give tangible reinforcers if necessary) if a more

Table 3b

Response Contingencies for Level B

GROUP	RESPONSE	SCORE	CONTINGENCY	CRITERION
I	Correct understandable sign used with correct understandable speech	+⋀+	Reinforce	Counts
	Correct understandable sign used with correct but unclear (or prompted) speech	+⋀S	Reinforce	Counts*
II	Correct but unclear (or prompted) sign used with correct understandable speech	S⋀+	Reinforce	Does not count
	Correct but unclear (or prompted) responses in both modes	S⋀S	Reinforce	Does not Count
III	Correct understandable sign used without any speech	+⋀0	May Reinforce or Correct	May count only if Reinforced
	Correct understandable sign used with incorrect speech attempt	+⋀-	May Reinforce or Correct	May count only if Reinforced
IV	Correct but unclear (or prompted) sign used without any speech	S⋀0	May Reinforce or Correct	Does not Count
	Correct but unclear (or prompted) sign used with incorrect speech attempt	S⋀-	May Reinforce or Correct	Does not Count
V	Incorrect sign used with correct understandable speech	-⋀+	Correct	Does not Count
	Incorrect sign used with correct but unclear (or prompted) speech	-⋀S	Correct	Does not Count
	Incorrect sign used with incorrect speech attempt	-⋀-	Correct	Does not Count
	Incorrect sign used without any speech attempt	-⋀0	Correct	Does not Count
	No sign but correct understandable speech	0⋀+	Correct	Does not Count
	No sign but unclear (or prompted) correct speech	0⋀S	Correct	Does not Count
	No sign but an incorrect speech attempt	0⋀-	Correct	Does not Count
	No response in either mode	0⋀0	Correct	Does not Count

*If prompted, this score may not count toward criterion.
**"Correct" means the trainer initiates the Correction Procedure discussed in the manual.

appropriate response follows the correction; then proceed to the next trial on the scoring sheet. If the student still produces an incorrect or no-response following the correction, the trainer says nothing and goes on to the next trial.

> NOTE: Only the student's first response needs to be recorded on the data sheet. Responses following the correction procedure do not count toward criterion and need not be scored. If the trainer wishes to note that the student did the second response correctly, a box may be placed around the corrected component; (⊟⋀__) for corrected signs or (__⋀⊟) for corrected speech.

Whatever the speech skills of the student, the trainer will need to monitor these responses constantly and continually upgrade the required responses as the student's skills allow. It is recommended that the trainer routinely transcribe the student's speech during the training trials (once per week for some students; once per month for other students). This will allow the trainer to gather specific data that will be useful in analyzing the student's progress. This analysis may help to determine if the speech is improving, what contingencies need to be added or changed, and whether specific vocalizations are being paired with specific signs.

The reinforcement contingencies for this training are shown in outline form on Table 3b. This Table describes also what the student's actual responses might be and whether that response combination should count toward criterion. The trainer has options in groups III and IV because reinforcement contingencies vary from student to student and from one response to another. In general, an intelligible, correct sign is still reinforced.

Group III responses represent special reinforcement consideration for students for one reason or another. It is unlikely that a severely retarded student will understand the sentence, "You made the right sign, but your speech is wrong," therefore, a reinforcer delivered for the correct sign may reinforce the incorrect speech as well. In order to avoid this problem, the trainer must look at the two responses working together as a unit to determine whether to reinforce. For some students this will cause no problems because they say the same gross approximation for all responses.

In some cases a student may occasionally use a clearly articulated speech word out of context with a sign. For example, when the trainer presents a shoe for labeling, the student may sign "shoe" but say "cookie." Because these responses may confuse a listener, they are recorded (+⋀-) and should not be reinforced or counted toward criterion. The trainer should show (on the scoring form) that a response with a (+) nonspeech score is not counted toward criterion by making a slash through the nonspeech score (i.e., $\cancel{+}$⋀-)).

In other cases a student may pair a specific vocalization with a particular word such as the student who always said "puhpuh" for puzzle.

Even though these vocalizations sound very little like the correct articulation of the word, they should be encouraged and reinforced. If the trainer judges this specific vocalization is in fact the student's "word," the student may be required to use that word with the point to the symbol card for each trial in order to be reinforced. If the student did say "puhpuh" and point correctly for puzzle, the response would be scored as (+ ⋀ S) and reinforced. If, however, the student said nothing, or said "gue," while pointing correctly for puzzle, the responses could be scored as (+ ⋀ 0) and (+ ⋀ -), respectively, and neither would be reinforced. Again, if the trainer chose not to reinforce the responses, a slash ($\cancel{+}$ ⋀ 0) or ($\cancel{+}$ ⋀ -), should be drawn through the nonspeech score to indicate those scores cannot count toward criterion.

There are instances where students will begin to show steady progress in the speech approximations given for a certain word because of the shaping or vocal stimulation procedures used by the trainer. When this occurs, the trainer will need to record any speech which is worse than previous attempts but accompanying a good nonspeech response, as (+ ⋀ -). Again, use the slash to remove that correct nonspeech from the tally of "number correct" for criterion purposes ($\cancel{+}$ ⋀ -).

Finally, the trainer should be aware that students who have paired vocalizations or verbalizations consistently with their signing during noun labeling and/or requesting objects, may not use any speech during "yes"/"no" training. A good rule of thumb in this case is to reinforce the nonspeech response if (+) or (S) and use some type of vocal stimulation to encourage future vocalizations with those words. Remember, Level B students do not need to accompany every sign with a vocalization.

Group IV responses present reinforcement problems similar to those for Group III. None of these responses, however, count toward criterion because of the (S) signing score

Criterion Performance

It is important to remember that criterion to exit from a Step or Phase can be based on the nonspeech (+ ⋀) score alone. The trainer may wish, however, to include speech in the criterion for some students. When speech is to be included as part of criterion, the student's performance should be:

1. Achieving 80 percent or higher intelligible independently correct responses, where the sign was accompanied by vocalizations, within a training session; or,

2. Producing 12 consecutive intelligible, correct responses where the sign was paired with a vocalization, within a series of trials in a training session.

The trainer may wish to prolong training on a particular step, if the student's speech has shown a large recent gain. This is done to obtain the best "total" response possible. With some students, however, the added pressure to perform in the speech mode may cause either the speech, or the signing, to become worse.

The trainer must become familiar with this Level's Training and Correction Procedure before beginning to train students in this program. The success of the system depends largely on the trainer's skills in observing the student and in applying effective consequences to both modes operating together. The trainer should have a good grasp of shaping, fading, prompting, and putting-through techniques and have an overall understanding of how to identify appropriate consequences. If the trainer is not experienced with the use of the behavioral techniques, we suggest consultation with a person who is knowledgeable of these techniques. Possibly the trainer may wish to refer to a basic text on the techniques of operant conditioning. The trainer should practice with another adult in using the Training and Correction Procedure before beginning the program with a student.

LEVEL C: REQUIRING SPEECH WITH NONSPEECH

The goal of this training Level is to establish functional speech skills by supporting speech with some type of signed response. Students placed in Level C are those who talk, but who have difficulty making their speech understood. Their best form of communication may be a sign approximation paired with a speech approximation. Singly, each response mode might be unintelligible; as a combined unit, the response is understandable. The manual response may function to pace the speech so that it is better articulated (i.e., the signs will slow down excessively rapid speech), or to give an added cue to vocalizations of questionable meaning. As with the earlier Level of training, the trainer must develop the student's signing and speaking skills concurrently through prompting and shaping. The target response of this Level is understandable total communication.

Placement

The trainer may want to use Level C procedures for students exhibiting behaviors like those listed below:

1. Use spoken words or sentences but with such poor articulation are difficult to understand.
2. Use spoken words or sentences, but speak too quickly to be understood.
3. Use spoken words or sentences, but have difficulty with word finding or word order.
4. Have shown slow progress in speech articulation training.

Deciding Target Speech Responses

As with the Level B training, the trainer using Level C should use the first session or two of each new task or Step to observe what speech the student uses with the new response. Students in Level C are required to use a vocalization or verbalization with every sign they use in an utterance. Level C students will also be required to use specific vocalizations for most words. The trainer should decide exactly what to require the student to say for each sign by recording what the student spontaneously says with the sign during the first few sessions on that Step. The trainer may wish to do some speech imitation or stimulation activities in order to identify what the student's best speech approximation might be.

Vocal Stimulation

Vocal stimulation activities are also useful during this Level of training and should be done routinely each session. The stimulation activities for students in Level C should attempt to encourage a clearer form of speech from the student on the word(s) being trained in the Step. The trainer should always use stimulation activities which pair the speech and sign. As in Level B, no data need be taken during the stimulation periods.

Data Collection

During this training, recording is completed in three different areas: the speech response, the signed response, and the acceptability of the two responses working together. This method allows the trainer to judge the total response in terms of the two modes' combined intelligibility. The sign component and speech component of each response are scored as before. The acceptability of the complete response is scored on the upper portion of the grid $\left(\frac{X}{\wedge}\right)$.

During Level C the signing part of the responses are recorded as described below:

(+): The student signed the word(s) clearly enough so a listener not familiar with the student's skills would understand the response out of context. The student should respond within 5 to 10 seconds of the trainer's stimulus without having received any prompts or cues from the trainer.

(S): This score is recorded any time the trainer reinforces a partially correct response, or if the response was prompted or cued. For example, the student may have required some help (additional cue or prompt) to complete a partially correct response, or he may have required physical help from the trainer to complete the correct response. This score may be used also if the student independently gave a clearer response than had been given before, but it was still not intelligible.

(-): Within 5 to 10 seconds, the student signed incorrectly. The student may have given an out-of-context sign; signed more than the words needed; given another type of response such as pointing to an object instead of naming it; given a sloppy unintelligible sign; resisted some type of prompt; or did any of the above after being given a cue or prompt. This score is also recorded any time the trainer judges that a previously shaped (reinforced) response is no longer acceptable and a slightly "more correct" response will be required in the future (response shaping).

(0): The student did not attempt to sign anything; or responded after 5 to 10 seconds.

The speech part of the Level C responses are also recorded as (+), (S), (-) and (0) with the same basic definitions as those given above for the signs.

The acceptability of the response is scored as follows:

(+): Acceptable; both the speech and nonspeech responses occurred, and in occurring together, they were intelligible.

(0): Unacceptable; either the speech or nonspeech response was incorrect, worse, or was omitted during the trial. This score also represents a response which is being shaped or prompted into a more intelligible response.

Training and Correction

As in the second Level of training, the combining of speech and nonspeech responses may result in a variety of possible responses from the student. Figure 7 presents the procedure used with the students who are learning signing as an intelligibility cue for their unclear speech. Table 4 presents this same information in outline form. There are five basic response types which may occur (see groups I - V, Table 4).

Group I. The first response discussed are those which should be routinely reinforced and should be scored as "acceptable," $(\overset{+}{\underline{\ \overline{\Lambda}\ }})$. These responses involve a correct clear nonspeech component or a correct but unclear speech component.*

NOTE: If shown candy, a clear, correct speech response might be "candy;" an unclear, correct speech response might be "nany." A clear, incorrect speech response when shown candy might be "shoe."

An example of the clear and correct response combination $(\overset{+}{\underline{+\overline{\Lambda}+}})$ is described below:

Student shown hat → Asked WHAT'S THAT?" → Signed Patted head with palm + as Said "hat" = + (understandable)

An example of the unclear and correct response combination, $(\overset{+}{\underline{+\overline{\Lambda}S}})$, would be:

Student shown table → Asked "WHAT'S THAT?" → Signed Right palm & elbow bounce on left + as Said "tabo" = + (understandable)

As stated earlier, the trainer should reinforce these responses, score $(\overset{+}{\underline{+\overline{\Lambda}+}})$, or $(\overset{+}{\underline{+\overline{\Lambda}S}})$ respectively, and then note if criterion had been met. If so, training may begin on the next Phase or Step of the program. If not, the next trial begins.

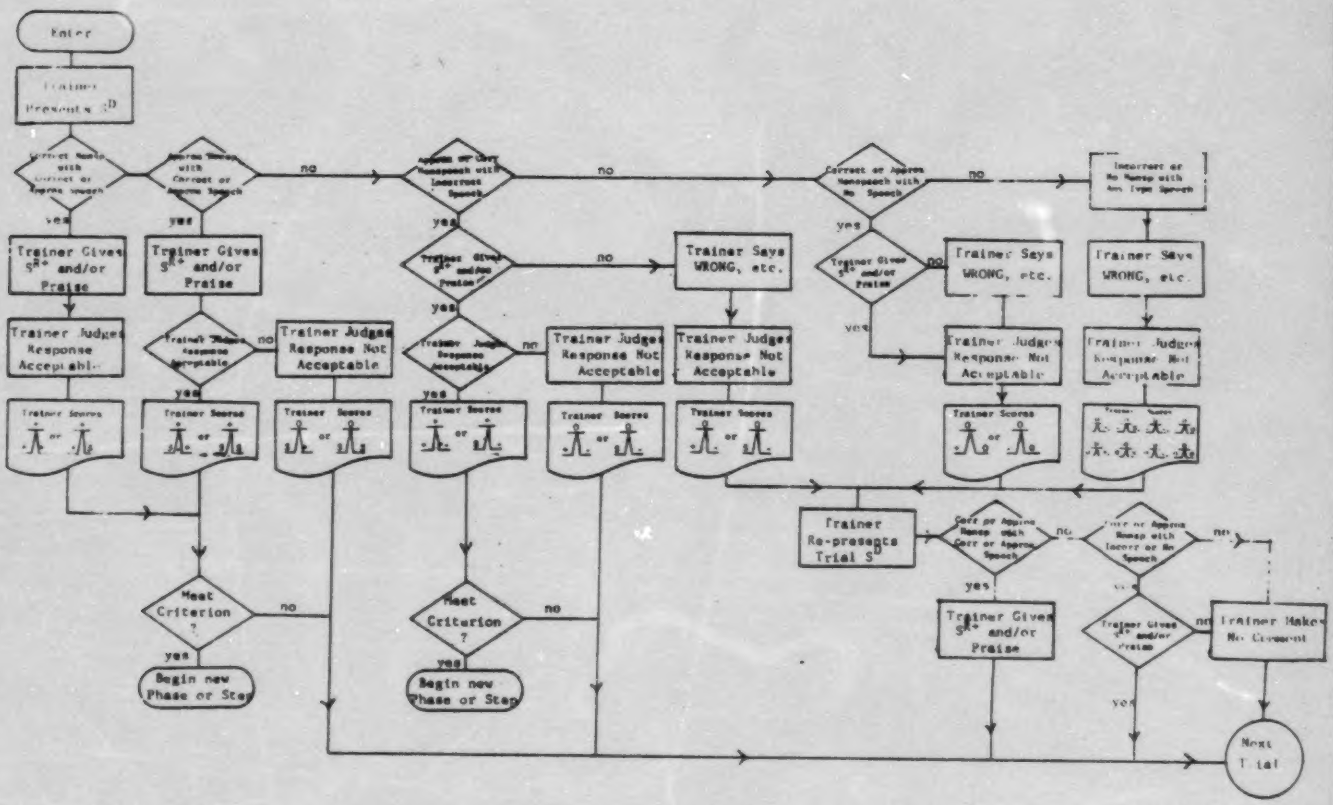
Enter
Trainer Presents S^D
Correct Nonsp with Correct or Approx Speech
yes
Trainer Gives S^{R+} and/or Praise
Trainer Judges Response Acceptable
Trainer Scores
or
Approx Nonsp with Correct or Approx Speech
yes
Trainer Gives S^{R+} and/or Praise
Trainer Judges Response Acceptable
no
yes
Trainer Judges Response Not Acceptable
Trainer Scores
or
Meet Criterion ?
yes
Begin new Phase or Step
no
no
Approx or Corr Nonspeech with Incorrect Speech
yes
Trainer Gives S^{R+} and/or Praise
no
yes
Trainer Judges Response Acceptable
no
yes
Trainer Scores
or
Meet Criterion ?
yes
Begin new Phase or Step
no
Trainer Judges Response Not Acceptable
Trainer Scores
or
Trainer Says WRONG, etc.
Trainer Judges Response Not Acceptable
Trainer Scores
or
no
Correct or Approx Nonspeech with No Speech
yes
Trainer Gives S^{R+} and/or Praise
no
yes
Trainer Says WRONG, etc.
Trainer Judges Response Not Acceptable
Trainer Scores
or
no
Incorrect or No Nonsp with Any Type Speech
Trainer Says WRONG, etc.
Trainer Judges Response Not Acceptable
Trainer Scores
Trainer Re-presents Trial S^D
Corr or Approx Nonsp with Corr or Approx Speech
yes
Trainer Gives S^{R+} and/or Praise
no
Corr or Approx Nonsp with Incorr or No Speech
yes
Trainer Gives S^{R+} and/or Praise
no
yes
Trainer Makes No Comment
no
Next Trial

Figure 7: Training and correction procedure for Level C students.

Table 4

Response Combinations Possible in Level C

GROUP	RESPONSE	SCORE	CONTINGENCY	CRITERION (ACCEPTABILITY)
I	Correct understandable sign used with correct understandable speech	$\overset{+}{\underline{+\wedge+}}$	Reinforce	Counts
	Correct understandable sign used with correct but unclear (or prompted) speech	$\overset{+}{\underline{+\wedge S}}$	Reinforce	Counts*
II	Correct but unclear or prompted sign used with correct understandable speech	$\underline{S\wedge+}$	Reinforce	May or may not count
	Correct but unclear or prompted responses in both modes	$\underline{S\wedge S}$	Reinforce	May or may not count
III	Correct but unclear or prompted sign used with some type of incorrect speech	$\underline{S\wedge-}$	May reinforce or Correct**	May or may not count
	Correct understandable sign used with some type of incorrect speech	$\underline{+\wedge-}$	May reinforce or Correct	May or may not count
IV	Correct but unclear or prompted sign used without any speech attempt	$\overset{0}{\underline{S\wedge 0}}$	Rarely may reinforce, usually correct	Does not count
	Correct understandable sign used without any speech attempt	$\overset{0}{\underline{+\wedge 0}}$	Rarely may reinforce, usually correct	Does not count
V	Some type of incorrect sign used with correct understandable speech	$\overset{0}{\underline{-\wedge+}}$	Correct	Does not count
	Some type of incorrect sign used with correct but unclear or prompted speech	$\overset{0}{\underline{-\wedge S}}$	Correct	Does not count
	Some type of incorrect responses in both modes	$\overset{0}{\underline{-\wedge-}}$	Correct	Does not count
	Some type of incorrect sign used without any speech attempt	$\overset{0}{\underline{-\wedge 0}}$	Correct	Does not count
	No sign attempt but understandable correct speech	$\overset{0}{\underline{0\wedge+}}$	Correct	Does not count
	No sign attempt but unclear or prompted speech	$\overset{0}{\underline{0\wedge S}}$	Correct	Does not count
	No sign attempt but some type of incorrect speech	$\overset{0}{\underline{0\wedge-}}$	Correct	Does not count
	No response in either mode	$\overset{0}{\underline{0\wedge 0}}$	Correct	Does not count

* If prompted speech, may not be acceptable (not count toward criterion).

**"Correct" means the trainer should initiate the Correction Procedure discussed in the Manual.

Group II. The second group of response combinations involve some type of partially correct sign accompanied by speech like that discussed above (clear, correct; or unclear, correct). These partially correct responses occur when the trainer is attempting to shape a clearer response, or when the trainer prompts (physical help, etc.) a clear response. The trainer must decide if the partially correct responses (either sign or speech) are improvements over previous attempts, or whether they are the same, or are worse than the previous efforts. If the partially correct responses are an improvement, the trainer reinforces and praises the student, then scores the responses accordingly. This is an example of response shaping.

To score these responses, the trainer is given an option of deciding whether they should be recorded as acceptable $(\underline{\ \overset{+}{\overline{\wedge}}\ })$, and therefore be counted toward criterion, or not acceptable $(\underline{\ \overset{0}{\overline{\wedge}}\ })$. Again this decision must be based on each student's skills and their performance history. If the shaped (S) scores represent very close approximations of the target response (perhaps the student's response has been "shaped" from very gross to almost clear), the trainer may judge this to be the student's best effort, and thus count it toward criterion. In this case the responses would be scored $(\underline{S\,\overset{+}{\overline{\wedge}}\,+})$ or $(\underline{S\,\overset{+}{\overline{\wedge}}\,S})$.

In other cases the (S) scores may represent very unintelligible efforts or the (S) score may represent a response which may be somewhat clear, but is still showing improvement. When either of these two instances occur, the responses would be scored $(\underline{S\,\overset{0}{\overline{\wedge}}\,S})$ and $(\underline{S\,\overset{0}{\overline{\wedge}}\,+})$ and would not count toward criterion.

Remember, the trainer should score a response as $(\underline{\ \overset{+}{\overline{\wedge}}\ })$ only if that response combination is acceptable. As defined earlier, this means that both the speech and sign worked together to make the response understandable. If the student is able to say a word very clearly, a perfect nonspeech response may not be necessary. However, the student should be taught to use a nonspeech response which a listener would not interpret as something else. An example of a $(\underline{S\,\overset{+}{\overline{\wedge}}\,+})$ is

Student shown		Asked		Signed		as Said		
book	→	"WHAT IS THAT?"	→	Hands together but don't open	+	"book"	=	+ (understandable)

An example of a $(\underline{S\,\overset{+}{\overline{\wedge}}\,S})$ response is:

Student shown		Asked		Signed		as Said		
coat	→	"WHAT IS THAT?"	→	Right A-hand once down lapels	+	"koh"	=	+ (understandable)

An example of a $(\underline{S\,\overset{0}{\overline{\wedge}}\,+})$ is:

$\boxed{\text{Student shown book}} \rightarrow \boxed{\text{Asked "WHAT'S THAT?"}} \rightarrow \boxed{\text{Signed Right hand moved up}} + \boxed{\text{as Said "koh"}} = +$ (understandable)

If the response was scored as acceptable, the trainer should observe whether that response completed the criterion level or performance for the Step, or for a Phase within the Step. If it did, the student is advanced to the next Phase within the Step or is moved to the next Step in the training sequence. If criterion level was not attained, the trainer moves to the next trial on the list and presents another S^D.

It the trainer prompted the response during the trial for Group II responses, that response may not be counted toward criterion and should be scored $(\underline{S\,\overset{0}{\overline{\wedge}}\,+})$ or $(\underline{S\,\overset{0}{\overline{\wedge}}\,S})$. Also, if the trainer is just beginning a shaping procedure and the partial nonspeech and possibly partial speech are still unintelligible, the responses should probably be recorded as $(\underline{S\,\overset{0}{\overline{\wedge}}\,+})$ or $(\underline{S\,\overset{0}{\overline{\wedge}}\,S})$ and therefore not counted toward criterion. Once the response is scored, the next trial is begun. The trainer does not use the correction procedure if a partially correct response was reinforced but judged unacceptable because it is, as of now, unintelligible.

Group III. The third group of responses to be discussed are those with either a clear or partial nonspeech response accompanied by some type of incorrect speech response. Usually, the trainer would not reinforce these responses. However, the purpose of this procedure is to allow concurrent development of both modes. This means that there may be times when a mediocre response in one of the modes accompanies a very good response in the other mode. In order to shape the total response, the trainer may reinforce. For example, there may be an occasion when considerable time has been spent shaping a nonspeech response and during one trial the student uses an improved nonspeech response. Simultaneously with the improved nonspeech response, however, the student's usually good speech response is uttered poorly. If the total response is still intelligible, the trainer may reinforce the student in order to strengthen that improved nonspeech response. The trainer then must decide if the response was acceptable. As always, an acceptable response, scored as $(\underline{+\,\overset{+}{\overline{\wedge}}\,-})$ or $(\underline{S\,\overset{+}{\overline{\wedge}}\,-})$ can count toward criterion; an unacceptable response scored as $(\underline{+\,\overset{0}{\overline{\wedge}}\,-})$ or $(\underline{S\,\overset{0}{\overline{\wedge}}\,-})$, cannot. Again, if the $(\underline{S\,\overline{\wedge}\;\;})$ nonspeech score represents a prompted response, the trial cannot count toward criterion and therefore must be scored $(\underline{\;\;\overset{0}{\overline{\wedge}}\;\;})$.

If the speech response was incorrect because it was partially correct but no better, or worse than previous attempts, or because it was an out-of-context response, the total response should not be reinforced. The student is told "WRONG" (or some equivalent), the response is scored as $(\underline{+\,\overset{0}{\overline{\wedge}}\,-})$ or $(\underline{S\,\overset{0}{\overline{\wedge}}\,-})$ and the correction procedure (described later) is initiated.

Group IV. The fourth group of responses involve a partially correct or clear nonspeech response, but no speech response. Only on rare occasions should the trainer reinforce these responses. As with the Group III responses, a student may concentrate so hard on performing the nonspeech response, they omit the speech component. The trainer may wish to reinforce this good nonspeech attempt but should begin vocal stimulation immediately in order to encourage the student to emit the speech with the nonspeech response again. Usually, the trainer will not reinforce these responses because the student failed to use any speech. Neither of these responses are allowed to count toward criterion and therefore scored as $\left(\overset{0}{\underline{+\,\wedge\,0}}\right)$ or $\left(\overset{0}{\underline{S\,\wedge\,0}}\right)$. After scoring the response, begin the correction procedure.

Group V. The final group of responses includes eight combinations involving either an incorrect or missing sign, regardless of what the speech response was. These responses are always considered unacceptable and result in the initiation of the correction procedure. Although this procedure involves "total communication" the primary emphasis is on the development of the new response mode; that is, nonspeech. Programming efforts should emphasize nonspeech training and pressuring the student to produce speech should be minimized.

The correction procedure for this Level is identical to that used in lower Levels. After scoring the response as not acceptable, the trainer immediately presents the same trial S^D again, and if necessary, prompts a correct response.

Following the re-presentation of the S^D, the trainer should praise the student (and give tangible reinforcers if necessary) if a more appropriate response followed the correctipn; then, proceed to the next trial on the list. If the student still produces an unacceptable response, following the correction procedure the trainer says nothing and goes onto the next trial.

Criterion Performance

During this Level of training, criterion for exit from a training Phase or Step is based on the $\left(\overset{+}{\underline{\;\wedge\;}}\right)$ acceptability score. Unless otherwise stated, criterion is defined as:

1. Achieving 80 percent or higher acceptable responses within a training session (training sessions are defined as the completion of all trials included on a Type 1 scoring sheet or one column for a Type 2 scoring sheet).
2. Producing 12 consecutive acceptable responses within a series of trials in a training session.

STEP 1

(Object Naming)

GENERAL INSTRUCTIONS

Training Goal

The training goal is to teach correct labeling (naming) of 16 items using signing and the best speech approximation possible. This Step is the student's introduction to the concept of reference (attaching a word-label to an object or event).

Training Items

Select 16 items whose labels the student can imitate quite clearly. (Refer to the section on Guidelines for Individual Training Steps for suggested training items.) The most important elements in selecting the materials is to choose items the student encounters every day and would likely enjoy using. This will increase the student's contact with the items and will reinforce the formal training. Other considerations for selecting items should include the degree of difficulty of the sign, i.e., one-handed versus two-handed signs, the arm movements necessary to make the sign, and the finger manipulation necessary to make the sign.

Procedures

Training. Use the general Total Communication Procedures presented earlier.

The data collection and correction procedures you use will depend on the speech skills Level of the individual student receiving training (see pages 17 through 39 describing the Levels). The other training instructions (stimulus presentation, training order, etc.) remain the same regardless of what the student's speech skills are. The specific application of the Total Communication Procedure for Step 1 follows.

Figure 8 presents a flow chart indicating the order of training to proceed through this Step. All Level A, B, and C students progress through the Step in the same order. The Step is begun by administering the Skill Test and training, if necessary, with the teacher asking the question "What's that?" in speech and sign simultaneously. This training is called Step 1a. The Step is then retested (and retaught if needed) with the teacher using speech alone (no signs) to ask "What's that?" This training is called Step 1b. Step 1c is then probed (and taught) with the trainer using only signs to ask the question. The expectations for the student's responses remain the same through all three parts of the Step (see Table 5).

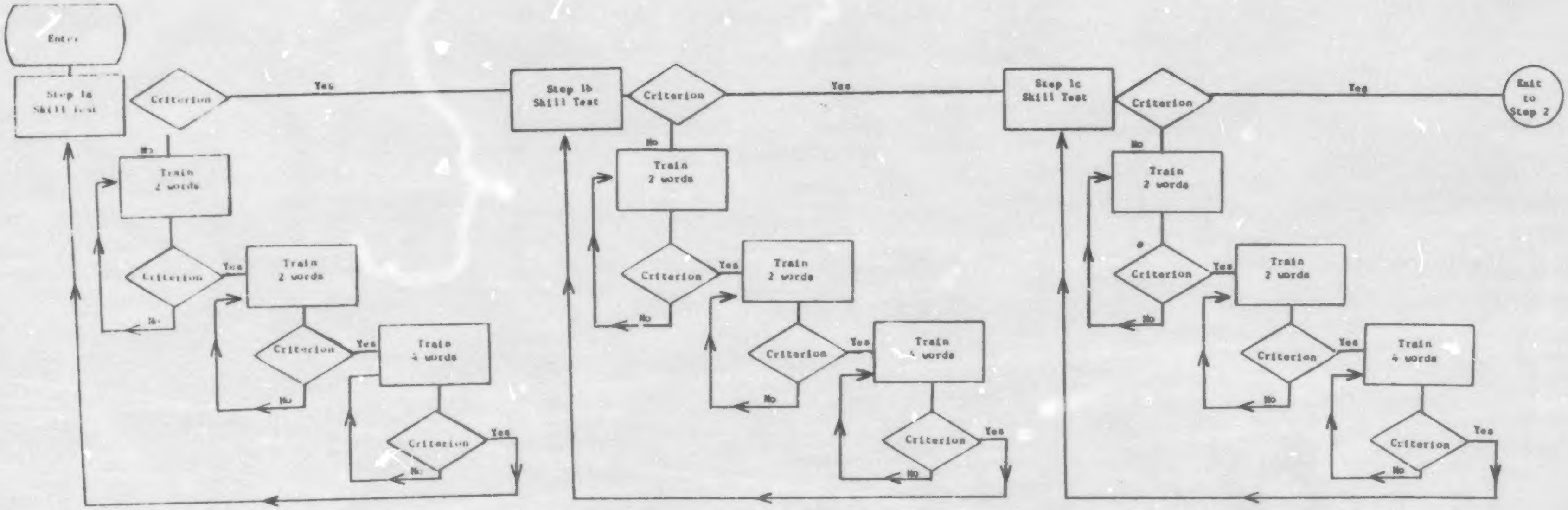

Figure 8: Order of Training for Step 1
of the Signing Program

Table 5

Sequence of Training

Step	Trainer asks question using:
1a	speech and signs together
1b	speech alone
1c	signs alone

Criterion. Move the student through Step 1 (see flow chart, Figure 8) when criterion performance is met. Criterion performance for Level A and B students is 80% or more correct responses, or 12 consecutive correct responses, in one session. For Level C students, criterion is 80% or 12 consecutive "acceptable responses" in one session. When a student responds at this level on a Skill Test, he/she may move on to the next Test (1a, 1b, 1c, or 2a). When he/she responds at criterion during training, he or she may move on to either new word groups or a Skill Test.

If the student is severely hearing impaired, Step 1b, speech alone, is not trained. Training with these students should go directly from Step 1a to 1c.

As mentioned before, percentage tables may be found in Appendix A. If a student makes 12 consecutive correct or acceptable responses, it is unnecessary to complete the rest of the trials listed on the scoring form either during a Test or training. When this occurs, compute the percentage by counting the number of correct responses, divide that number by the total number of trials presented, and multiply by 100.

SPECIFIC INSTRUCTIONS

STEP 1a: TRAINER USES SPEECH AND SIGNS

Skill Test Instructions

This Step has a Skill Test to be given to the student before beginning training and after training on each set of four items.

In giving the Skill Test, present all 16 items to the student, one at a time. Only the item being presented should be in view. The remaining items should be placed nearby in a box. Each item is presented twice, making a total of 32 trials, but no item is presented twice in a row.

In presenting the items, the trainer places the item in the student's view (i.e., on the table, in trainer's lap, etc.) and says "what" while giving the manual sign for "what" and then says "that" while giving the manual sign for "that."

NOTE: The trainer uses the Total Communication Procedures when giving the Skill Test. This means that if the student does not respond or responds incorrectly, he should be corrected as described in the Levels. The trial is re-presented, giving the student the opportunity to make a correct response. If the student responds correctly after the trial is re-presented, he/she may be reinforced. If the student does not respond correctly when the trial is re-presented, the trainer says nothing, and goes to the next trial. The trial is always re-presented only once. Example trials from the Skill Test (1a) are shown in Tables 6, 7, and 8; Figures 9, 10, and 11 for the three Levels. Please pay particular attention to the Level which is used with your student.

Scoring Responses for the Skill Test

After the trainer has given the Skill Test using both speech and signs (Step 1a) the number of correct (+), conflicting (≠), incorrect (-), shaped or prompted (S), or no response (0) scores are counted for both sign and speech responses. Remember, the sign scores are recorded on the lower left hand line of the grid (x⋀‾). The speech scores are recorded on the lower right line of the grid (‾⋀x). For students on Level C, the acceptability scores are counted, too. They are scored as acceptable (+), or not acceptable (0) on the top line of the grid (ˣ⋀).

The percentages are derived by dividing each score by the total number and multiplying that number by 100. To assist in figuring the percentages, conversion tables are presented in Appendix A for all total trial combinations found in the nine Steps of the signing manual.

The Skill Test Scoring Form for Step 1 has 32 trials. The speech Level A student, Joe, (Figure 9) responded to 9% of the trials correctly. He does not vocalize and his signing responses were scored as 3(+), 0(≠), 9(-), 7(S), and 13(0).

Susie, on Speech Level B, gave 13% correct responses for signing (Figure 10). Her signing responses were scored as 4(+), 0(≠), 11(-), 9(S), and 8(0). Although Susie's speech percentage was 0% correct, she did score 0(+), 0(-), 18(S), and 14(0). This indicates that Susie is at times vocalizing with either an approximated response (shape) or a prompted response.

See Trial 1 in Table 8. This student is on Level C. He did not sign on this trial but did say the word. This may be a common error in early Level C training. Read Table 8 to see how to handle such a response.

Table 6

Example Trials* for Step la Skill Test
Level A Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Trial 1	
(Places shoe in front of student, well apart from the other objects.)	
what that / WHAT'S THAT?	(No response for at least 5 seconds either manually or vocally.)
wrong shoe / WRONG. THIS IS A SHOE.	
(Scores [0⋏_] on Skill Test Scoring Form.)	
what that / WHAT'S THAT?	(no response) / (no response)
(Does nothing, goes on to next trial.)	
Trial 2	
(Places jar of bubbles in front of student)	
what that / WHAT'S THAT?	(no response) / (no response)
wrong bubble / WRONG. THIS IS BUBBLE. you bubble / YOU SIGN BUBBLE.	bubble / (no response)
(Scores [0⋏_] on Skill Test Scoring Form.)	
better what that / BETTER WHAT'S THAT?	bubble / (no response)
that it bubble / THAT'S IT. THIS IS BUBBLE! (Holds the bubble wand for student to blow into as a reinforcer.)	
Trial 3	
(Places a cookie in front of student)	
what that / WHAT'S THAT?	(Places hands together as if clapping) / (no response)
very close / VERY CLOSE! (Gives student piece of cookie as a reinforcer for an approximated response. Scores trial as [S⋏_] on Skill Test Scoring Form.)	

*Example trials for this Table correspond to those trials with asterisks (*)

Table 7
Example Trials* for Step 1a Skill Test
Level B Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Trial 1	
(Places shoe in front of student.)	
what that / WHAT'S THAT?	(no response) / BUH
wrong shoe / WRONG. THIS IS A SHOE. (Emphasizes the sign for shoe). (Scores $[0 \wedge \underline{S}]$ on Skill Test Scoring Form.)	
sign cookie / CAN YOU SIGN COOKIE? (Puts student's hands through the sign.)	(allows trainer to put hands through the sign.)
better what that / BETTER! WHAT'S THAT?	(no response) / BUH
(Does nothing. Goes on to next trial.)	
Trial 2	
(Places bubbles in front of student.)	
what that / WHAT'S THAT?	(claps hands above head / UH
good try bubble / THAT WAS A GOOD TRY, THESE ARE BUBBLES. (Scores $[\underline{S} \wedge \underline{S}]$ on Skill Test Scoring Form. Lets student blow bubbles.)	
(Here the trainer chose to reinforce an approximated response. Later shaping will help the student use a clearer response.)	(Notice that the student makes a vocalization to accompany the signing attempt. Level B students should do this routinely.
Trial 3	
(Places cookie in front of student.)	
what that / WHAT'S THAT?	ball / KUH
wrong cookie / WRONG. THAT'S A COOKIE. (Scores $[- \wedge \underline{S}]$ on Skill Test Scoring Form.)	
cookie / COOKIE.	(right fist taps left palm) / KUH
good sign / GOOD SIGNING!	
what that / WHAT'S THAT?	(right fist taps left palm) / KUH
good work / GOOD WORK! (Gives student small piece of cookie. Here the trainer chose to reinforce the student for a good attempt following the correction procedure. This would not be done in later trials if the word, cookie, is being clearly signed.)	
Trial 4	
(Places ball in front of student.)	
what that / WHAT'S THAT?	ball / (no response)
terrific that ball / TERRIFIC! THAT'S A BALL. (Scores $[\pm \wedge \underline{0}]$ on Skill Test scoring form. Plays ball with student for a few seconds.)	
ball say ball ball ball / THIS IS BALL. SAY BALL? B - B - B!	(no response) / UH
good talk / GOOD TALKING!	
(Here the trainer chose to reinforce a correct sign even though the student did not simultaneously vocalize. After the response was reinforced, the trainer began a short vocal stimulation period and reinforced any vocal response the student made.)	

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*Example trials for this Table correspond to those trials with astericks (*) on Example Skill Test Scoring Forms, Figure 10.

Table 8

Example Trials* for Step 1a Skill Test
Level C Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Trial 1	
(Places shoe in front of student.)	
what that / WHAT'S THAT?	(no response)/ SHOE
wrong sign shoe / WRONG. YOU HAVE TO SIGN SHOE, TOO. (Scores $\left[\underline{0}\overset{0}{\bigwedge}\underline{\pm}\right]$ on Skill Test Scoring Form.)	
what that / WHAT'S THAT?	shoe / SHOE
terrific / TERRIFIC!	
Trial 2	
(Places bubbles in front of student.)	
what that / WHAT'S THAT?	shoe / BUH BUH
wrong not shoe bubbles / WRONG. THAT'S NOT A SHOE. IT'S BUBBLES. (Scores $\left[\underline{=}\overset{0}{\bigwedge}\underline{S}\right]$ on Skill Test Scoring Form.)	bubble / BUH BUH
that better / THAT'S BETTER.	
what that / WHAT'S THAT? (Does nothing, goes on to next trial.)	(no response) / BUH BUH
Trial 3	
(Places cookie in front of student.)	
what that / WHAT'S THAT?	(taps side of right fist on left palm / COOTY
good try cookie / GOOD TRY. THIS IS COOKIE. (Emphasizes the clear sign and reinforces the student for approximating the correct response.) (Score $\left[\underline{S}\overset{\pm}{\bigwedge}\underline{S}\right]$ on Skill Test Scoring Form.)	(twists right fist on left palm) / COOTY palm) / COOTY
very nice signing / VERY NICE SIGNING. (Gives student small piece of cookie for imitating the sign more clearly.)	(Notice that the speech for this Level C student varies from very clear to quite gross. This is common for Level C students.)

*Example trials for this Table correspond to those trials with asterisks (*) on Example Skill Test Scoring Forms, Figure 11.

Board
Signing

Figure 9

Skill Test Scoring Form for Step 1

Student Joe Date 1/3/77 Session # 1

Trainer Judy

Circle Speech Level: [✓ A] B C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

In blanks 1-16 list the 16 items that are used in Step 1; then list them again (not in the same order) in blanks 17-32.

	Item	Score		Item	Score
* 1.	shoe	0	17.	ball	0
* 2.	bubbles	0	18.	nut	-
* 3.	cookie	S	19.	towel	-
4.	hat	0	20.	shoe	+
5.	ball	0	21.	car	0
6.	milk	-	22.	cracker	S
7.	spoon	0	23.	chair	-
8.	towel	0	24.	comb	S
9.	candy	+	25.	milk	0
10.	cracker	-	26.	bubbles	0
11.	chair	0	27.	candy	+
12.	cup	S	28.	spoon	-
13.	nut	-	29.	cup	S
14.	soap	-	30.	cookie	-
15.	car	0	31.	soap	S
16.	comb	0	32.	hat	S

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	/	-	S	0
Score	3	0	9	7	13
Percent	9	0	28	22	41

Speech

+	-	S	0

Acceptability

+	0

*Sample trials shown in Table 6.

Board
Signing

Figure 10

Skill Test Scoring Form for Step 1

Student Susie Date 1/3/77 Session # 1

Trainer Judy

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

In blanks 1-16 list the 16 items that are used in Step 1; then list them again (not in the same order) in blanks 17-32.

	Item	Score		Item	Score
* 1.	shoe	0 S	17.	ball	+ S
* 2.	bubbles	S S	18.	cup	0 S
* 3.	cookie	- S	19.	car	S 0
4.	pop	0 S	20.	bubbles	S S
* 5.	ball	+ 0	21.	chip	- 0
6.	radio	0 S	22.	book	+ S
7.	spoon	- S	23.	shoe	S 0
8.	towel	0 0	24.	candy	+ S
9.	candy	S S	25.	soap	- S
10.	chip	- 0	26.	radio	- 0
11.	book	S 0	27.	cookie	S 0
12.	cup	0 0	28.	water	- 0
13.	water	0 S	29.	spoon	- 0
14.	soap	- S	30.	pop	0 S
15.	car	- 0	31.	comb	S S
16.	comb	S 0	32.	towel	- S

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	/	-	S	0
Score	4	0	11	9	8
Percent	13	0	34	28	25

Speech

+	-	S	0
0	0	18	14
0	0	56	44

Acceptability

+	0

*Sample trials shown in Table 7.

Board
Signing

Figure 11

Skill Test Scoring Form for Step 1

Student David Date 1/3/77 Session # 1

Trainer Judy

Circle Speech Level: A B [✓ C] Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

In blanks 1-16 list the 16 items that are used in Step 1; then list them again (not in the same order) in blanks 17-32.

	Item	Score		Item	Score
* 1.	shoe	$\overset{0}{0\;+}$	17.	cracker	$\overset{+}{+\;S}$
* 2.	bubbles	$\overset{0}{-\;S}$	18.	ball	$\overset{+}{S\;+}$
* 3.	cookie	$\overset{+}{S\;+}$	19.	nut	$\overset{0}{-\;-}$
4.	pop	$\overset{0}{-\;+}$	20.	car	$\overset{0}{0\;+}$
5.	ball	$\overset{0}{0\;S}$	21.	bubbles	$\overset{0}{0\;S}$
6.	radio	$\overset{0}{0\;S}$	22.	candy	$\overset{+}{+\;S}$
7.	spoon	$\overset{0}{0\;S}$	23.	book	$\overset{+}{+\;+}$
8.	towel	$\overset{0}{0\;-}$	24.	spoon	$\overset{+}{S\;S}$
9.	candy	$\overset{0}{S\;S}$	25.	shoe	$\overset{0}{-\;+}$
10.	cracker	$\overset{0}{-\;-}$	26.	cup	$\overset{+}{S\;+}$
11.	book	$\overset{0}{0\;+}$	27.	pop	$\overset{+}{S\;+}$
12.	cup	$\overset{0}{0\;+}$	28.	towel	$\overset{+}{S\;S}$
13.	nut	$\overset{0}{-\;-}$	29.	gum	$\overset{0}{-\;-}$
14.	gum	$\overset{0}{-\;-}$	30.	cookie	$\overset{+}{+\;+}$
15.	car	$\overset{+}{S\;+}$	31.	brush	$\overset{0}{S\;S}$
16.	brush	$\overset{0}{0\;-}$	32.	radio	$\overset{0}{S\;S}$

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	/	-	S	0
Score	4	0	8	10	10
Percent	12	0	25	31	31

Speech

+	-	S	0
13	7	12	0
41	22	37	0

Acceptability

+	0
11	21
34	66

*Sample trials shown in Table 8

Notice that Joe has no scores recorded in the speech section of the grids or summary section for his Skill Test. This is because he is a Level A student (does not vocalize). Susie does have scores in the speech sections because she is a Level B student (vocalizes consistently). Begin (or continue) training on Step 1a if the student's score on the Step 1a Skill Test was below 80% correct or acceptable or if fewer than 12 consecutive correct or acceptable responses were scored. If criterion was reached on the Step 1a Skill Test, move on to Step 1b of the program.

Training Instructions

1. Select two of the 16 items used in the Skill Test 1a and place them both in front of the student. Be sure to review the considerations for item selection, as described in "Training Items."

2. Give the manual signs for "what" while saying "what" and then "that" while saying "that." You may then point to the item named. The student must give the correct label for the item to be given credit for a correct response (see the response definitions given earlier in the Total Communication, Speech Levels section). Present the items in the order shown for that session on the Scoring Forms for Step 1. Remember that you may use either Type 1 Scoring Forms or Type 2 Scoring Forms. The example trials, Tables 9, 10, and 11, illustrate what to do during trials when the student does not respond correctly.

   Table 9, Figures 12 (Type 1 Scoring Form) and 13 (Type 2 Scoring Form) show example trials for Step 1a training for a Level A student. Since the trial numbers do not always match on the two types of Scoring Forms, the first number shown will be the trial number for a Type 1 Form and the second number corresponds to Type 2 Forms. You will never use both types of Scoring Forms to record data for the same session. Both Forms are provided here as examples in order for you to learn to use both Types. In real training, only one Form would have been used each session to record data. The examples show how to handle trials that are incorrect (Trial 1/1), and correct (Trial 2/4).

   Figures 14 and 15 and Table 10 show Step 1a training data for a speech Level B student. Figures 16 and 17 and Table 11 show training for a Level C student.

   If a student can't tolerate the 64 trials per session on a Type 1 Form or the 20 trials per session on a Type 2 Form, the trainer can be flexible. During initial training of the Step, do as many trials as possible, and work on increasing the number of trials the student can tolerate. It is also possible to break the trials up into smaller segments to be run several times throughout the day.

3. Continue training the first two items until criterion performance is met. Criterion is the same as for the Skill Test--80% correct responses or 12 consecutive correct responses in one session. Remember that for Level C students this means 80% or 12 consecutive acceptable responses. On a Type 1 Form, 80% is 52 correct of 64 possible trials. For a Type 2 Form, 16 correct responses of the 20 possible are required for the 80%.

Table 9

Example Trials* for Step la Training
Level A Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Type 1 Trial 1 Type 2 Trial 1	
(Shows shoe.)	
what that / WHAT'S THAT? that shoe / THAT'S A SHOE (Score [0⊼] .)	(no response) / (no response)
what that / WHAT'S THAT	(no response) / (no response)
(Goes on to the next trial.)	
Type 1 Trial 2 Type 2 Trial 4	
(Shows shoe.)	
what that / WHAT'S THAT?	shoe / (no response)
good sign that shoe / GOOD SIGNING! THAT'S A SHOE. (Score [S⊼] .)	
what that / WHAT'S THAT?	shoe / (no response)
very good / VERY GOOD	
Type 1 Trial 3 Type 2 Trial 2	
(Shows bubbles.)	
what that / WHAT'S THAT?	bubbles / (no response)
great bubble / GREAT! BUBBLES! (Score [±⊼] .)	
(Blows bubbles for student to pop.)	

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*Example trials for this Table correspond to those trials with asterisks (*) on Example Scoring Forms, Figures 12 and 13.

Board
Signing

Figure 12

Scoring Form for Step 1

Type 1

Student Joe Date 1/4/79 Session # 2

Trainer Judy

Circle Speech Level: [✓ A] B C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

This scoring form can be used for either the one-pair or two pair presentations described in Step 1 training procedures. For training pairs of items, assign numbers (1) and (3) to the first item (for a total of 32 trials); assign numbers (2) and (4) to the second item in the pair (for the remaining 32 trials). When training all four items, assign each to a single number (16 trials each).

List Items Used: (1) shoe (2) bubbles (3) ______ (4) ______

1.	(1)	*0兀	17.	(4)	=兀	33.	(1)	S兀	49	(3)	±兀
2.	(3)	*S兀	18.	(2)	-兀	34.	(4)	±兀	50.	(2)	0兀
3.	(2)	*±兀	19.	(3)	±兀	35.	(2)	±兀	51.	(4)	0兀
4.	(4)	-兀	20.	(1)	±兀	36.	(2)	S兀	52.	(1)	0兀
5.	(1)	S兀	21.	(4)	±兀	37.	(3)	±兀	53.	(3)	S兀
6.	(1)	±兀	22.	(4)	±兀	38.	(4)	±兀	54.	(2)	S兀
7.	(2)	±兀	23.	(1)	±兀	39.	(3)	±兀	55.	(3)	±兀
8.	(3)	±兀	24.	(2)	S兀	40.	(1)	±兀	56.	(1)	±兀
9.	(4)	-兀	25.	(3)	=兀	41.	(3)	=兀	57.	(4)	=兀
10.	(2)	S兀	26.	(4)	-兀	42.	(2)	=兀	58.	(2)	±兀
11.	(1)	0兀	27.	(2)	=兀	43.	(4)	±兀	59.	(4)	±兀
12.	(4)	±兀	28.	(1)	-兀	44.	(1)	-兀	60.	(1)	0兀
13.	(3)	0兀	29.	(1)	-兀	45.	(2)	±兀	61.	(2)	±兀
14.	(2)	S兀	30.	(3)	0兀	46.	(1)	±兀	62.	(3)	±兀
15.	(4)	-兀	31.	(2)	S兀	47.	(3)	±兀	63.	(1)	±兀
16.	(3)	±兀	32.	(3)	S兀	48.	(4)	0兀	64.	(4)	±兀

Record response components as correct (+); incorrect (-); shaped or prompted ($); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

	Nonspeech					Speech				Acceptability	
	+	/	-	$	0	+	-	$	0	+	0
Score	30		14	11	9						
Percent	47		22	17	14						

*Sample trials shown in Table 9

Board
Signing

Figure 13

Scoring Form for Step 1

Type 2

Student Joe Trainer Judy

Circle Speech Level: [✓ A] B C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) shoe 2) bubbles 3) ______ 4) ______
A1 WHAT'S THAT? "label" Two or Four Items

NUMBER CORRECT	STIMULUS PRESENTATION	RESPONSES												
20	1	±兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
19	2	-兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
18	4	=兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
17	3	±兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
16	2	-兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
15	3	S兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
14	1	0兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
13	4	±兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
12	3	0兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
11	1	S兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
10	4	-兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
9	2	±兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
8	2	(±兀)	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
7	3	±兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
6	3	S兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
5	4	-兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
4	1	*S兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
3	2	±兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
2	4	*±兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
1	1	*0兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀	兀
0		X	X	X	X	X	X	X	X	X	X	X	X	X
DATE		1/4/79												

COMMENTS:

*Sample trials shown in Table 9

Table 10
Example Trials* for Step 1a Training
Level B Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Type 1 Trial 1 — Type 2 Trial 1	
(Shows shoe.)	
what that / WHAT'S THAT?	(no response) / BUH
wrong shoe / WRONG. THAT'S A SHOE. (Scores $\left[\underline{0}\,\overline{\wedge}\,\underline{S}\right]$.)	
sign shoe / SIGN SHOE.	shoe / (no response)
much better what that / MUCH BETTER! WHAT'S THAT?	(no response) / BUH
(Does nothing. Goes on to next trial).	
Type 1 Trial 2 — Type 2 Trial 4	
(Shows shoe.)	
what that / WHAT'S THAT?	shoe / SUH
very nice good talking / VERY NICE! GOOD TALKING! (Scores $\left[\underline{+}\,\overline{\wedge}\,\underline{S}\right]$.)	
say shoe / SAY SHOE.	(no response) / SOO
better say shoe / BETTER. SAY SHOE.	(no response) / SOO
good try / GOOD TRY! (Here the trainer chose to do some vocal stimulation before going to the next trial in an attempt to improve the vocalization which the student used with the sign.)	
Type 1 Trial 3 — Type 2 Trial 2	
(Shows bubbles.)	
what that / WHAT'S THAT?	(opens and closes fingers on thumb) / BUH
nice try bubbles / NICE TRY. BUBBLES. (Score $\left[\underline{S}\,\overline{\wedge}\,\underline{S}\right]$.)	bubbles / BUH BUH
much better bubbles / MUCH BETTER. BUBBLES.	bubbles / BUH BUH
(Lets student blow bubbles.)	

---

*Example trials for this Table correspond to those trials with astericks (*) on Example Scoring Forms, Figures 14 and 15.

Board
Signing

Type 1

Figure 14

Scoring Form for Step 1

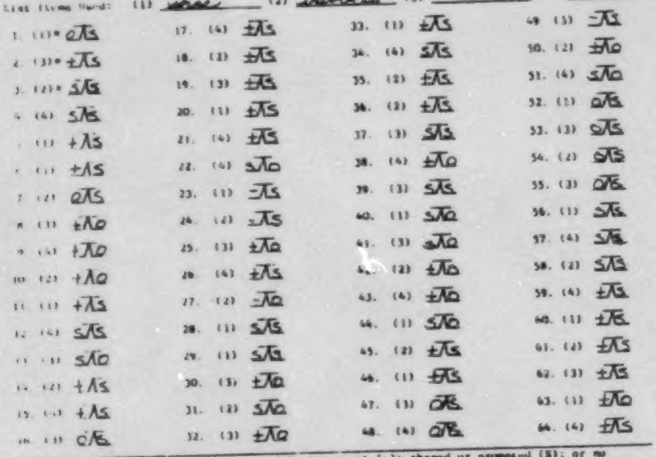
Student Susie Date 1/5/... Session # 1

Trainer Judy

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

This scoring form can be used for either the one-pair or two pair presentations described in Step 1 training procedures. For training pairs of items, assign numbers (1) and (3) to the first item (for a total of 32 trials); assign numbers (2) and (4) to the second item in the pair (for the remaining 32 trials). When training all four items, assign each to a single number (16 trials each).

List Items Used: (1) shoe (2) bubbles (3) ______ (4) ______


1. (1)*
2. (3)*
3. (2)*
4. (4)
5. (1)
6. (1)
7. (2)
8. (3)
9. (4)
10. (2)
11. (1)
12. (4)
13. (3)
14. (2)
15. (1)
16. (3)
17. (4)
18. (2)
19. (3)
20. (1)
21. (4)
22. (4)
23. (1)
24. (2)
25. (3)
26. (4)
27. (2)
28. (1)
29. (1)
30. (3)
31. (2)
32. (3)
33. (1)
34. (4)
35. (2)
36. (2)
37. (3)
38. (4)
39. (3)
40. (1)
41. (3)
42. (2)
43. (4)
44. (1)
45. (2)
46. (1)
47. (3)
48. (4)
49 (3)
50. (2)
51. (4)
52. (1)
53. (3)
54. (2)
55. (3)
56. (1)
57. (4)
58. (2)
59. (4)
60. (1)
61. (2)
62. (3)
63. (1)
64. (4)

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

	Nonspeech					Speech				Acceptability	
	+	/	-	S	0	+	-	S	0	+	0
Score	33		4	18	9	0	0	45	19		
Percent	52		6	28	14			70	30		

*Example trials shown in Table 10

Board
Signing

Type 2

Figure 15

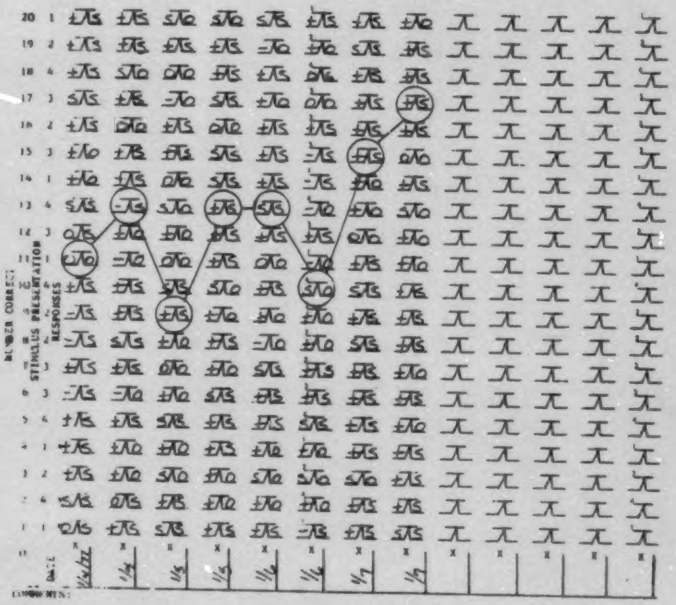
Scoring Form for Step 1

Student Susie Trainer Judy

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) shoe 2) bubbles 3) ______ 4) ______

A: WHAT'S THAT? "label" Two or Four Items



COMMENTS:

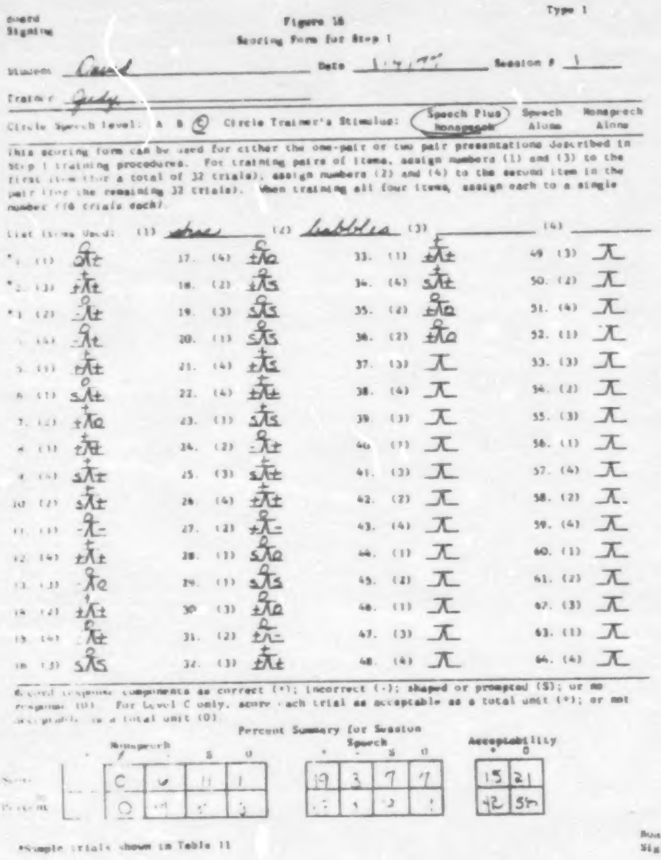
*Example trials shown in Table 9

Table 11

Example Trials* for Step 1a Training
Level C Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Type 1 Trial 1 Type 2 Trial 1	
(Shows shoe.) what that / WHAT'S THAT?	(no response) / SHOE
wrong sign shoe what that / WRONG YOU NEED TO SIGN SHOE, TOO. WHAT'S THAT? (Score $\left[{}_{\underline{0}}\overset{0}{\wedge}{}_{\underline{+}}\right]$.)	shoe / SHOE
better / BETTER.	
(Goes on to next trial.)	
Type 1 Trial 2 Type 2 Trial 4	
(Shows shoe.) what that / WHAT'S THAT?	shoe / SHOE
terrific / TERRIFIC! (Score $\left[{}_{\underline{+}}\overset{+}{\wedge}{}_{\underline{+}}\right]$.)	
(Begins next trial.)	
Type 1 Trial 3 Type 2 Trial 2	
(Shows bubbles.) what that / WHAT'S THAT?	cookie / BUHOL
wrong bubble / WRONG. BUBBLES (Scores $\left[{}_{\underline{-}}\wedge{}_{\underline{S}}\right]$.)	bubble / BUHOL
better what that / BETTER. WHAT'S THAT?	bubble / (no response)
(Does nothing. Begins next trial.)	

*Example trials for this Table correspond to those trials with asterisks (*) on Example Scoring Forms, Figures 16 and 17.



Board Signing

Type 1

Figure 16

Scoring Form for Step 1

Student Carol Date 1-4-77 Session # 1

Trainer Judy

Circle Speech Level: A B [✓ C] Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

This scoring form can be used for either the one-pair or two pair presentations described in Step 1 training procedures. For training pairs of items, assign numbers (1) and (3) to the first item (for a total of 32 trials), assign numbers (2) and (4) to the second item in the pair (for the remaining 32 trials). When training all four items, assign each to a single number (16 trials each).

List Items Used: (1) shoe (2) bubbles (3) ______ (4) ______

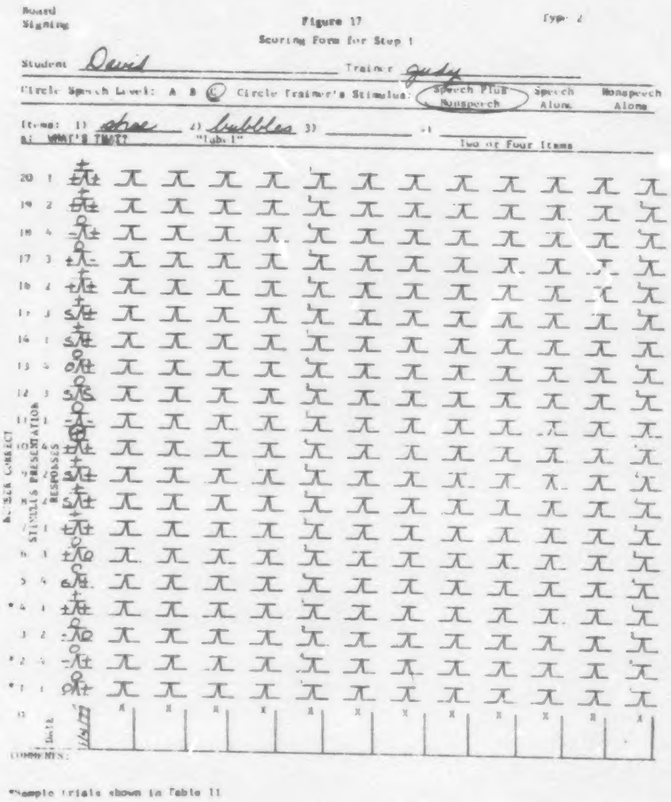
*1. (1)	17. (4)	33. (1)	49. (3)
*2. (3)	18. (2)	34. (4)	50. (2)
*3. (2)	19. (3)	35. (2)	51. (4)
4. (4)	20. (1)	36. (2)	52. (1)
5. (1)	21. (4)	37. (3)	53. (3)
6. (1)	22. (4)	38. (4)	54. (2)
7. (2)	23. (1)	39. (3)	55. (3)
8. (1)	24. (2)	40. (1)	56. (1)
9. (4)	25. (3)	41. (3)	57. (4)
10. (2)	26. (4)	42. (2)	58. (2)
11. (1)	27. (2)	43. (4)	59. (4)
12. (4)	28. (1)	44. (1)	60. (1)
13. (3)	29. (1)	45. (2)	61. (2)
14. (2)	30. (3)	46. (1)	62. (3)
15. (4)	31. (2)	47. (3)	63. (1)
16. (3)	32. (3)	48. (4)	64. (4)

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

	Nonspeech +	Nonspeech -	Nonspeech S	Nonspeech 0	Speech +	Speech -	Speech S	Speech 0	Acceptability +	Acceptability 0
Score	C	[illegible]	11	1	19	3	7	7	15	21
Percent	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	42	58

*Sample trials shown in Table 11



Board Signing

Type 2

Figure 17

Scoring Form for Step 1

Student David Trainer Judy

Circle Speech Level: A B [✓ C] Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) shoe 2) bubbles 3) ______ 4) ______

A: WHAT'S THAT? "Label"

Two or Four Items

NUMBER CORRECT

STIMULUS PRESENTATION

RESPONSES

DATE 1/4/77

COMMENTS:

*Sample trials shown in Table 11

4. After the student reaches criterion on the first pair of two items, select two different items and train them to criterion in the same way. When criterion is met on the second pair, train the 4 items to criterion using the same procedure.

5. After the set of four items is trained to criterion, give the Skill Test la again. If the student reaches criterion on the Skill Test la, then give Skill Test lb.

6. If the student does not reach criterion on the Skill Test la, train the next four items selected from the list of 16, in the same manner (that is; one pair, then the second pair, then all 4 at one time):

   1 and 2 (e.g., cookie and ball):

   3 and 4 (e.g., hat and crayon):

   1, 2, 3, and 4 (e.g., cookie, ball, hat and crayon):

   Give Skill Test la (trainer uses speech and sign together). If criterion is reached, give Skill Test lb (trainer uses speech alone). If not, train the next items from the list of 16:

   5 and 6:

   7 and 8:

   5, 6, 7, and 8:

   Give Skill Test la. If criterion is reached, give Skill Test lb; if not, train the next items:

   9 and 10:

   11 and 12:

   9, 10, 11, 12:

   Give Skill Test la. If criterion is reached, give Skill Test lb; if not, train the next items:

   13 and 14:

   15 and 16:

   13, 14, 15, and 16:

   Give Skill Test la. If criterion is reached, give Skill Test lb. If not, the trainer has several options listed below.

The items may be regrouped to create new pairs and sets of items. Train the new pairs and sets as described above until the student reaches criterion on Skill Test 1a. Another option is to choose new objects to be trained. The student may not learn the label for objects which do not interest him. The student may do better if new, more reinforcing objects are introduced. Another reason for changing items is if the sign is physically too difficult for the student to make. A final option is to move on to Step 2, if you feel that the student's failure to achieve criterion does not mean that he or she cannot make progress in Step 2. A student who is having trouble achieving criterion on Step 1 may still be able to achieve criterion on Step 2. After achieving criterion on Step 2 (a, b, and c), he or she can then be returned to Step 1 to complete training in that Step. For some students, this procedure aids in achieving criterion performance on Step 1.

Remember, your student does NOT have to move through the speech levels in order to achieve criterion on any part of the Step.

STEP 1b: TRAINER USES SPEECH ALONE

Step 1b is EXACTLY the same as Step 1a, except that the trainer uses only speech (i.e., says, but does not sign) to ask "What that?" Manual signing is used by the trainer (with speech) at other times during the session however (general conversation, reinforcement, etc.). This technique is incorporated in order to train the student to attend to speech alone. In this way, the student will learn to understand other people in his/her environment who do not sign to him/her. The student should respond with both the same signing and speech responses which he/she used in Step 1a training.

Be sure to use the same items in Step 1a, 1b, and later in 1c.

The Skill Test 1b and Step 1b Training procedures remain EXACTLY the same as for Step 1a, with only the exception explained earlier (the speech alone question of "What's that?").

When criterion is reached on 1b, training should then begin on 1c. Refer back to the flow chart to see exactly how to proceed (Figure 8).

Step 1b is optional for students with moderate or severe hearing losses.

STEP 1c: TRAINER USES SIGNS ALONE

Step 1c is EXACTLY the same as Step 1a, with the exception that the trainer's stimulus is sign alone; that is, no speech is used by the trainer to ask the question "What's that?" This part of the Step is taught so that the student will learn to attend to attend to others in his/her environment (probably peers) who sign but do not speak, or do not speak clearly. Again, the student's speech and sign responses remain the same.

Both the Step 1c Skill Test and Training procedures remain as described earlier, with this one exception.

When criterion is reached on the 1c Skill Test, training should then begin on Step 2a.

Remember, if the student does not reach criterion after training all 16 items, you can either regroup the training items or go on to Step 2.

SUMMARY FORM FOR STEP 1

Figure 18 presents a sample Summary Form for the Step 1a program. Step 1a is indicated on the Summary Form by the marks under both "Speech" and "Nonspeech" stimulus conditions at the top of the Form. A new Summary Form is completed for both Steps 1b and 1c. Step 1b is indicated by checking only the "Speech" stimulus condition. Step 1c is shown by marking only the "Nonspeech" condition.

As indicated, only the percent-correct responses from the Skill Test are entered at the appropriate space with the date in which the Skill Test was administered. In this particular example the Skill Test (1a) was administered on January 3, 1977 and the student had 13 percent correct responses (refer to example Skill Test Scoring Form, Figure 10). The Skill Tests are considered to be training sessions because the student is reinforced for correct responses and corrected for wrong responses. Accordingly, the date on which the Skill Test is first administered is also the date training started. Training with two items (shoe and bubbles) started on January 4, 1977. Figure 10 shows that the student reached criterion (81 percent) in session 5 for the pair of items, shoe and bubbles. The next two items, cookie and pop, were then trained to criterion (86 percent) in session 10. The Skill Test was then re-administered, with the student achieving 31% correct. Because Susie did not reach criterion on Skill Test 1a, the next set of items, ball and radio, were trained to criterion (81 percent), then the next two items (spoon and towel) were trained to criterion (89 percent), then the four items were trained to criterion (84%). Note that training to criterion for the four items took only one session.

At this point, the student is advanced to Step 2a, and programming for generalization is begun on Step 1.

GRAPHING SUMMARY FORM DATA

You may wish to graph progress data for students as they advance through the steps. Procedures for graphing are shown in Appendix B.

You may also use the Type 2 Scoring Forms for self-graphing, by circling the number correct during each session, and drawing a line from one circle to the next circle. If Type 2 Forms are used, the trainer is encouraged to also keep more long-term graphs to help with viewing progress over longer periods of time.

Board
Signing

Figure 18

Summary Form for Step 1

Speech Level: B Trainer's Stimulus: sp + sg

Student Susie Trainer Judy

Date Training Started Jan 3, 1977 Date Training Ended ______ Total Sessions to Criterion ______

Percent Correct Responses Across Sessions

Items	Session #																					Speech Approximations
1(shoe) & 2(bubbles)		52	56	75	81																	shoe-oo bubbles-buh buh
3(cookie) & 4(pop)						25	45	70	92													cookie-kuh pop-pah
1,2,3,4										86												ball-buh radio-eh
5(ball) & 6(radio)												41	58	75	81							
7(spoon) & 8(towel)																38	72	75	72	89		spoon-oo towel-tuh
5,6,7,8																					84	
9(candy) & 10(chip)																						
11(book) & 12(cup)																						
9,10,11,12																						
13(water) & 14(soap)																						
15(car) & 16(comb)																						
13,14,15,16																						
Skill Test	13										31											
Date	1/3	1/4	1/5	1/6	1/7	1/10	1/12	1/13	1/14	1/17	1/18	1/19	1/24	1/25	1/26	1/27	1/28	1/31	2/1	2/2	2/7	

Items Used in Training

1. shoe	5. ball	9. candy	13. water
2. bubbles	6. radio	10. chip	14. soap
3. cookie	7. spoon	11. book	15. car
4. pop	8. towel	12. cup	16. comb

Board Display

(Circled percentages represent criterion based on 12 consecutive correct responses.)

Board
Signing

Figure 18 (continued)

Summary Form for Step 1

Speech Level: B Trainer's Stimulus: sp + sg

Student Susie Trainer Judy

Date Training Started Jan 3, 1977 Date Training Ended March 9 1977 Total Sessions to Criterion 39

Percent Correct Responses Across Sessions

Items	Session #																					Speech Approximations
1( ) & 2( )																						
3( ) & 4( )																						
1,2,3,4																						
5( ) & 6( )																						
7( ) & 8( )																						
5,6,7,8																						
9(candy) & 10(chip)		56	62	92																		candy-kuh chip-pah
11(book) & 12(cup)					77	95																book-buh cup-kuh
9,10,11,12							83															
13(water) & 14(soap)									61	70	67	83										water-uh soap-puh
15(car) & 16(comb)													56	26	79	89						car-kuh comb-koh
13,14,15,16																	92					
Skill Test	61							77										95				
Date	2/10	2/11	2/14	2/15	2/16	2/18	2/21	2/22	2/23	2/24	2/25	2/28	3/1	3/2	3/3	3/7	3/8	3/9				

Items Used in Training

1. shoe	5. ball	9. candy	13. water
2. bubbles	6. radio	10. chip	14. soap
3. cookie	7. spoon	11. book	15. car
4. pop	8. towel	12. cup	16. comb

Board Display

(Circled percentages represent criterion based on 12 consecutive correct responses.)

PROGRAMMING FOR GENERALIZATION

Upon completion of Step 1, a list of trained items should be given to the student's parents, parent-surrogates, teachers and others who have daily contact with the student. Their purpose is to increase the use of the newly taught vocabulary with persons other than the trainer and in environments other than the training area. Whenever it is appropriate and/or functional these persons should present the same items and ask the student "What's that?" Eventually the instruction they use should vary. Gradually "what's that?" should be replaced by questions which are longer and use other vocabulary. The student should be responding to "What's that?" for several days prior to varying the cue. An example for the vocabulary word puzzle: when the student is in the bedroom, living room, classroom, etc., playing with the puzzle the parent, teacher, etc., could ask "What (are you) play (ing) with?" This will allow the student to use the newly trained word in a functional setting in addition to increasing his/her receptive vocabulary.

It may be necessary initially to reinforce the student with edibles as well as praise. Gradually reinforcement other than that which would occur naturally should be avoided. When the student labels pop it would be natural to give him/her a drink of pop. It would not be natural to give the student a drink of pop for labeling shirt. In this instance the student should receive praise and if needed, assistance with his/her shirt.

Throughout training it is likely the same objects were used. When working towards generalization a variety of objects representing each newly trained label should be used. When generalizing the use of the word shoe the student should be encouraged to sign/point to shoe for as many different shoes as possible. Table 12 provides examples of generalization across persons, places and cues. New (non-trained) items and pody parts should gradually be added to the list only when the student appears to be maintaining an acceptable level of labeling in the home or school setting for several consecutive days. The trainer should record in the student's file whether or not generalization occurs.

Table 12

Generalization Overview

Suggested Vocabulary To Practice in	Different, appropriate Settings with	Different People Using	Different Verbal Cues	
			STEPS 1 & 3	STEP 2
bed, pillow, blanken, shirt, shoe, socks, pants, gown, ring, hat, necklace, watch, dress	Bedroom	parents, parent-surrogates, unit workers, siblings(?), education staff, peers(?)	What put on What take off What wear there What's over there What sit on (could add you to each cue to lengthen) What's that etc.	Point to ______ Show me ______ Give me ______ Get the ______ Find the ______ Pick up the ______ Where's the ______ (could add student's name, me and articles a, an, the, to lengthen cue)
knife, fork, spoon, sandwich, table, chair, plate, milk, cup, glass, candy, cookie, cake, pop, cracker, chips, peanuts, apple, juice, gum	Kitchen	Any of the above Dining hall staff	What eating with What sit on What are you eating What drinking What's that etc.	Any of the above
toilet, bathtub, washcloth, towel, soap, comb, brush, mirror, lotion, toothbrush, toothpaste	Bathroom	parents, parent-surrogates, unit workers, education staff, siblings(?), peers(?)	What look at What put on What sit on/in What on face What fix hair with What washing with What's that etc.	Any of the above
Any of the above which are appropriate swing, bicycle, TV, radio, ball, truck, crayon, doll, puzzle, block, drum	Any Recreation Area	Any of the above	What have What in your hand What play with/on What listening to What watching What's that etc.	Any of the above
Any of the above which are appropriate pencil, paper, desk, book	Classroom		What's on your desk What writing with/on What's that etc. (could add verbs, ing to lengthen)	Any of the above

STEP 2

(Object Recognition)

GENERAL INSTRUCTIONS

Training Goal

To teach receptive identification of the same 16 items the student was taught to label in Step 1. This Step concentrates on the dimension of reception (understanding statements given and questions asked).

Training Items

The same items used in Step 1 are used in Step 2.

Procedures

Training. In Step 2, the students are not expected to give an expressive response. This means that they are not asked to sign or vocalize in response to the trainer's stimuli. They are asked only to identify the actual objects named by the trainer. They may point to the objects, pick them up, hand them to the trainer, etc. Because the students are not expected to use a "total communication" response in this Step, the trainer should use the Level A Training and Correction Procedure with all students in Step 2. These procedures (including correcting, prompting, shaping, and putting through) are used any time an incorrect, no response, or partial response situation occurs.

Because the students are not asked to use paired responses, only one of the four symbols (+, -, 0, S) are recorded for any one response. This eliminates the need for the scoring grid on the Scoring Forms for Step 2. Example scoring and data collection are shown later in this Step.

Figure 19 presents a Flow Chart indicating the order that all students (except deaf) proceed through Step 2. Just as in Step 1, the Step is taught in three different conditions. The Step is begun by administering the Skill Test and training, if necessary, with the trainer giving the instruction ("Show me," etc.) in speech and sign simultaneously (Step 2a). The Step is then retested (and retaught if needed) with the trainer using speech alone (no signs used) to give the instruction (Step 2b). Step 2c is then probed (and taught) with the trainer using only signs to give the instruction.

Criterion. Move the student through Step 2 (see Flow Chart) when criterion performance is met. As in Step 1, Step 2 criterion is 80% or more correct responses, or 12 consecutive responses, in one session. When a student responds at this level on a Skill Test, he/she may move on to the next Skill Test (2a, 2b, 2c, or 3a). When he/she responds at criterion during training, he/she may move on to either a new word group or a Skill Test.

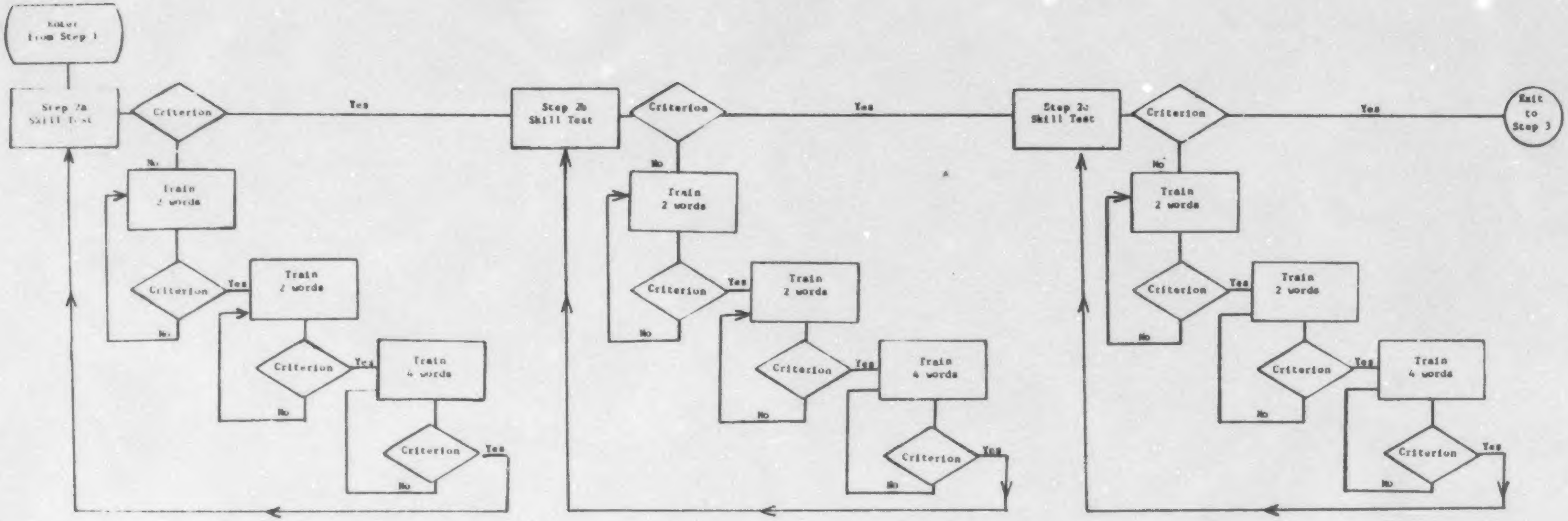


Figure 19: Order of Training for Step 2 of the Signing Program

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SPECIFIC INSTRUCTIONS

STEP 2a: TRAINER USES SPEECH AND SIGN

Skill Test Instructions

This Step has a Skill Test to give the student before beginning training and after training each set of four items. (This follows the same sequence used in Step 1.) Move the student on to Step 2b whenever he or she achieves criterion on the Skill Test. Criterion is 80 percent or more correct responses in a row in one training session.

In giving the Skill Test, the 16 items are presented to the student in sets of four:

1. Place the four items on the table in front of the student and give one of the following instructions in manual sign and speech: 1) POINT TO THE (ITEM); 2) GIVE ME (ITEM); or 3) simply, (ITEM)? Make sure to use the same instruction (whichever you prefer) throughout the Skill Test.
2. After scoring the student's response to each instruction, rearrange the four items on the table.
3. Give the student the instruction in manual sign and speech for each of the four items, then select a second set of four and follow the same procedure.
4. When all 16 items have been presented, rearrange the items to create new sets of four and repeat the sequence. This will result in 32 trials. Use the Total Communication Procedure for Level A with the Skill Test. The examples in Trials 1, 2, 3, and 8 of Table 13 show how to use the Procedures with the Skill Test, and are keyed to the sample Skill Test Scoring Form in Figure 20.

Computing Percent Response for Skill Test

When the Skill Test has been given add up (separately) the number of correct, incorrect, shaped, and no-responses. Refer to the 32-trial table in Appendix A to convert these numbers to percents. Enter the percents in the appropriate space at the bottom of the Skill Test Form.

Training Instructions

1. Select two items and place them in front of the student. Give the student one of three instructions in speech and sign together: a) POINT TO (ITEM); b) GIVE ME (ITEM); or c) simply (ITEM)? If you begin the training by simply using (ITEM)?, you should gradually fade in one of the other two options as training progresses.

Table 13
Example Trials* for Step 2a Skill Test
Signing

Trainer sign / SPEECH	Student Pointing
Trial 1	
(Places a shoe, bubbles, cookie and nut on the table in front of the student.)	
show me shoe / SHOW ME SHOE.	(no response)
wrong shoe / WRONG. THIS IS A SHOE. (Points to actual object. Scores trial as [0] on Skill Test Scoring Form.)	
show me shoe / SHOW ME SHOE.	(points to shoe)
wow that terrific / WOW! THAT'S TERRIFIC!	
(Rearranges items on table for Trial 2.)	
Trial 2	
show me bubble / SHOW ME BUBBLE	(imitates sign for bubble)
wrong / WRONG. THIS IS BUBBLE (Trainer takes student's hand and guides it to the jar of bubbles. Scores as [-] on Skill Test Scoring Form.)	
show me bubble / SHOW ME BUBBLE.	(points to nut)
(Says nothing and rearranges the items on table for Trial 3.)	
Trial 3	
show me cookie / SHOW ME COOKIE	(points to bubble)
wrong cookie / WRONG. THIS IS COOKIE. (points to actual object. Scores a [-] on Skill Test Scoring Form.)	
show me cookie / SHOW ME COOKIE.	(points to cookie)
good work / GOOD WORK! (Gives student a piece of the cookie as a reinforcer.)	
(Rearranges items on table for Trial 4)	
Trial 4	
show me ball / SHOW ME BALL.	(points to ball)
terrific / TERRIFIC! (Gives ball to student to play with momentarily. Scores [+] on Skill Test Scoring Form.)	
I want ball / I WANT BALL.	(gives ball to trainer)
(Rearranges items on table for Trial 5.)	

*Example trials for this Table correspond to those trials with astericks (*) on Example Skill Test Scoring Forms, Figure 20.

Figure 20

Skill Test Scoring Form for STEP 2

Student Joe Date 3/10/77 Session # 1

Trainer Judy

Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

List the 16 items (twice) that are used for training in STEP 2

	ITEM	SCORE		ITEM	SCORE
*1.	shoe	0	1.	chair	+
*2.	bubbles	-	2.	nut	+
*3	cookie	-	3.	towel	-
*4	ball	+	4.	bubbles	+
5.	milk	+	5.	cup	+
6.	hat	+	6.	ball	+
7.	towel	0	7.	comb	+
8.	spoon	+	8.	car	+
9.	candy	+	9.	shoe	+
10.	chair	+	10.	cracker	-
11.	cup	+	11.	soap	+
12.	nut	+	12.	candy	+
13.	soap	+	13.	milk	+
14.	car	+	14.	hat	0
15.	cracker	-	15.	cookie	+
16.	comb	+	16.	spoon	+

Score trials as correct (+); incorrect (-); shape (S); or no response (0).

Summary for Test (based on 32 trials)

	+	-	S	0
Score	24	5	0	3
Percent	75	16	0	9

To be given credit for a correct response to the first two options, the student must follow the instruction exactly (point to the item when you use Option a or give it to you when you use Option b. If you are using the third option, the student may be given credit for picking the item up, pointing to it, or for handing it to you.

During a session, each item in the set of two is presented randomly and for an equal number of trials (follow the instructions given on the scoring form provided for Step 2). Continue training the set of two until criterion is reached (80 percent correct in a single session or 12 correct responses in a row during a single session).

The examples in Table 14 show a typical training session, including the use of the Training and Correction Procedure for no-response, an incorrect response, and correct responses. These examples are keyed to the first four trials of the Sample Scoring Form for Step 2, Figures 21 and 22.

2. After the student achieves criterion on the first set of two items, select a second set of two and train to criterion.

3. After the student achieves criterion on the second set of two items, combine the first two sets into a set of four items and train the set of four to criterion following the same procedure (the Scoring Form for Step 2 can be used for sets of two or four items). Remember that all four items are placed on the table for each training trial.

4. When the student achieves criterion on the set of four items, give the Skill Test again.

5. If the student achieves criterion on the Skill Test, begin training Step 2b.

6. If the student does not reach criterion on the Skill Test, begin training with the pair of items 5 and 6, then items 7 and 8, etc. The outline for the training sequence follows.

   Train to criterion: Items

      1 and 2 (e.g., cookie and pants)

      3 and 4 (e.g., ball and nose)

      1, 2, 3, and 4 (e.g., cookie, pants, ball and nose)

      Administer Skill Test (if criterion is reached, proceed to Step 2b, if criterion is not reached, train items below).

      5 and 6

      7 and 8

      5, 6, 7, and 8

Table 14
Example Trials* for Step 2a Training
Signing

Trainer sign / SPEECH	Student Pointing
Type 1 Trial 1 Type 2 Trial 1	
(Places cracker and towel in front of student.)	
show me cracker / SHOW ME CRACKER.	(points to cracker)
that right. that cracker / THAT'S RIGHT. THAT'S THE CRACKER. (Gives student a piece of cracker. Scores [+] on Step 2 Scoring Form. Rearranges items for next trial.)	
Type 1 Trial 2 Type 2 Trial 2	
show me cracker / SHOW ME CRACKER.	(no response)
wrong this cracker (point to cracker) / WRONG. THIS IS THE CRACKER. (Score [0] on Step 2 Scoring Form.)	(points to cracker)
better / THAT WAS BETTER.	
show me cracker / SHOW ME CRACKER.	(no response)
(Says nothing. Rearranges items for next trial.)	
Type 1 Trial 7 Type 2 Trial 7	
show me towel / SHOW ME TOWEL.	(points to cracker)
wrong this towel (points to towel / WRONG. THIS IS THE TOWEL. (Scores [-] on Step 2 Scoring Form.)	
show me towel / SHOW ME TOWEL	(points to towel)
wow much better towel / WOW! MUCH BETTER! THAT'S THE TOWEL.	
(Pats student on back. Rearranges items for next trial.)	
Type 1 Trial 8 Type 2 Trial 8	
show me cracker / SHOW ME CRACKER.	(points to cracker, then to towel).
wrong this cracker (point to cracker) / WRONG. THIS IS THE CRACKER. (Scores [-] on scoring form.)	
show me cracker / SHOW ME CRACKER.	(points to cracker)
great. that right / GREAT. THAT'S RIGHT.	
(Rearranges items for next trial.)	

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*Example trials for this Table correspond to those trials with astericks (*) on Example Scoring Forms, Figures 21 and 22.

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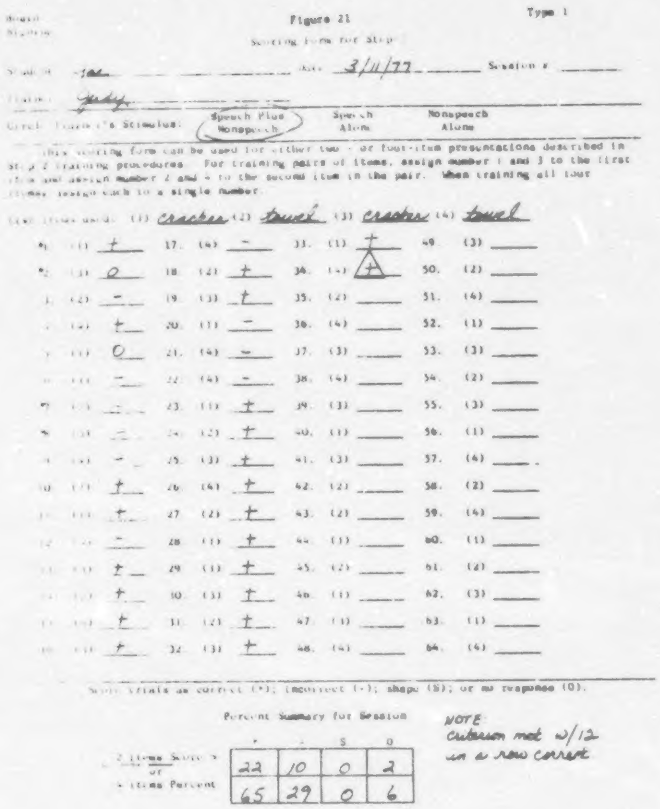


Board
Signing

Figure 21

Type 1

Scoring Form for Step 2

Student Joe Date 3/11/77 Session # ____

Trainer Judy

Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

This scoring form can be used for either two - or four-item presentations described in Step 2 training procedures. For training pairs of items, assign number 1 and 3 to the first item and assign number 2 and 4 to the second item in the pair. When training all four items, assign each to a single number.

List items used: (1) cracker (2) towel (3) cracker (4) towel

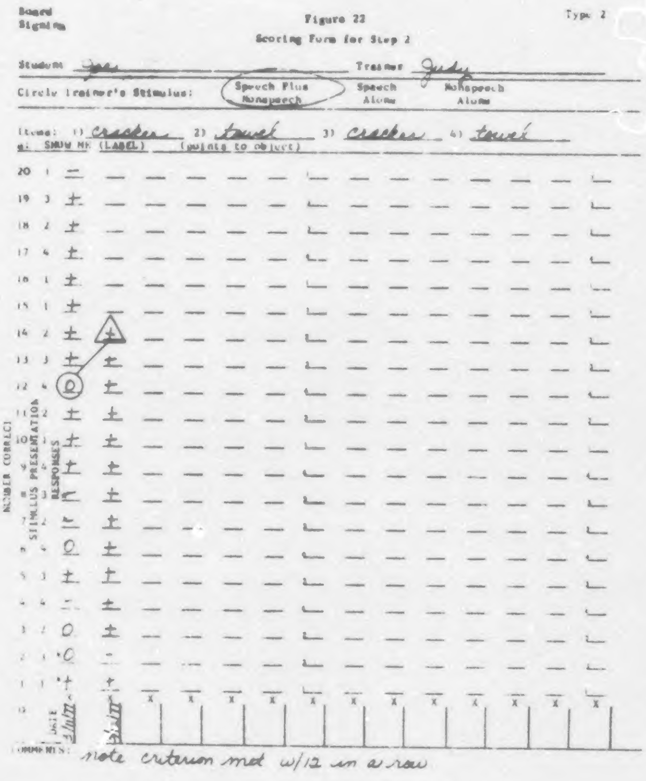
1.	(1)	+	17.	(4)	−	33.	(1)	+	49.	(3)	
2.	(3)	0	18.	(2)	+	34.	(4)	+	50.	(2)	
3.	(2)	−	19.	(3)	+	35.	(2)		51.	(4)	
4.	(4)	+	20.	(1)	−	36.	(4)		52.	(1)	
5.	[illegible]	0	21.	(4)	−	37.	(3)		53.	(3)	
6.	[illegible]	−	22.	(4)	−	38.	(4)		54.	(2)	
7.	[illegible]	−	23.	(1)	+	39.	(3)		55.	(3)	
8.	[illegible]	−	24.	(2)	+	40.	(1)		56.	(1)	
9.	[illegible]	−	25.	(3)	+	41.	(3)		57.	(4)	
10.	[illegible]	+	26.	(4)	+	42.	(2)		58.	(2)	
11.	[illegible]	+	27.	(2)	+	43.	(2)		59.	(4)	
12.	[illegible]	−	28.	(1)	+	44.	(1)		60.	(1)	
13.	[illegible]	+	29.	(1)	+	45.	(2)		61.	(2)	
14.	[illegible]	+	30.	(3)	+	46.	(1)		62.	(3)	
15.	[illegible]	+	31.	(2)	+	47.	(1)		63.	(1)	
16.	[illegible]	+	32.	(3)	+	48.	(4)		64.	(4)	

Score trials as correct (+); incorrect (-); shape (S); or no response (0).

Percent Summary for Session

	+	-	S	0
2 items Score or	22	10	0	2
4 items Percent	65	29	0	6

NOTE
Criterion met w/12
in a row correct



Board
Signing

Figure 22

Type 2

Scoring Form for Step 2

Student Joe Trainer Judy

Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) cracker 2) towel 3) cracker 4) towel
Q: SHOW ME (LABEL) (points to object)

NUMBER CORRECT	STIMULUS PRESENTATION	RESPONSES	
20	1	−	
19	3	+	
18	2	+	
17	4	+	
16	1	+	
15	1	+	
14	2	+	+
13	3	+	+
12	4	0	+
11	2	+	+
10	1	+	+
9	4	+	+
8	3	−	+
7	2	−	+
6	4	0	+
5	3	+	+
4	4	−	+
3	2	0	+
2	1	0	−
1	1	+	+
0		X	X
DATE		3/11/77	[illegible]

COMMENTS: note criterion met w/12 in a row

Administer Skill Test (if criterion is reached, proceed to Step 2b; if criterion is not reached, train items below):

9 and 10

11 and 12

9, 10, 11, and 12

Administer Skill Test (if criterion is reached, proceed to Step 2b, if criterion is not reached, see note below):

NOTE: If the student does not achieve criterion on the Skill Test given after all 16 items have been trained according to the procedure given above, you should rearrange the 16 items into new sets of two and four and continue training (in the same manner) until the student does achieve criterion.

STEP 2b: TRAINER USES SPEECH ALONE

Procedures for Skill Test Step 2b are EXACTLY the same as for 2a except that the trainer's stimulus is SPEECH ALONE. If the student did not reach criterion on Skill Test 2b, then training begins on Step 2b. If the student did reach criterion on Skill Test 2b, then Skill Test 2c is administered.

Procedures for training 2c are also EXACTLY the same as for 2a, except that the trainer's stimulus is Speech Alone.

STEP 2c: TRAINER USES SIGNS ALONE

Procedures for training Step 2c are EXACTLY the same as for 2a, except that the trainer's stimulus is SIGN ALONE. If the student does not reach criterion on Skill Test Step 2c, then training on Step 2c begins. If the student did reach criterion on Skill Test Step 2c, then Step 3a training is initiated.

SUMMARY FORM FOR STEP 2

A sample summary form for Step 2 is presented in Figure 23. This summary form is filled out in the same manner as the summary sheet for Step 1, with the Skill Tests again counted as training sessions. Figure 23 shows only the final three days of training. Another sheet would indicate earlier training. The circles around the scores indicate that the student correctly responded 12 consecutive times, which is criterion. As noted, the percentage is less than 80%, but remember that criterion is 80% correct OR 12 consecutive correct in a row.

Figure 23

Summary Form for Step 2

Trainer's Stimulus: speech + sign

Student Joe Trainer Judy

Date Training Started ______ Date Training Ended ______ Total Sessions to Criterion ______

Percent Correct Responses Across Sessions

	Session #																																
Items	1	2	3																														
1(cracker) & 2(towel)	65																																
3(hat) & 4(bubbles)		75																															
1,2,3, & 4																																	
5( ) & 6( )																																	
7( ) & 8( )																																	
5,6,7, & 8																																	
9( ) & 10( )																																	
11( ) & 12( )																																	
9,10,11, & 12																																	
13( ) & 14( )																																	
15( ) & 16( )																																	
13,14,15, & 16																																	
Skill Test			100																														
Date	3/10/77	3/11	3/12																														

(Circled percentages represent criterion based on 12 consecutive correct responses.)

PROGRAMMING FOR GENERALIZATION

When the student has met criterion on Step 2 the list of trained items should be reviewed with the student's parents, parent-surrogates, teachers, etc. Specific suggestions for functional practice are found in Table 11.

It may be necessary initially to present the items in blocks of four (as in training) but as soon as possible the student should be asked to point to the object wherever it is located in his environment. For example, when sitting at the table the student could be asked to identify plate, spoon, fork, cup, milk, food, etc., or when in his room the student could be asked to identify various articles of clothing, etc., which are located in the closet such as: coat, shirt, pants, toys or games.

New items can be introduced when correct responding on previously trained items is maintained for several consecutive days. Again, and for all generalization training, a record of the student's progress should be kept on file for review.

STEP 3

(Requesting Items)

GENERAL INSTRUCTIONS

Training Goal

To train the student to request items using a two-word response ("want [item]"), in sign and the best speech approximation possible. This Step initiates training in the control dimension of language (i.e., saying things which direct another person to do something).

Training Items

Ten items (foods, liquids, toys, etc.) that are reinforcing to the student. The most important thing in making your selection of items for this Step is that the student wants them. It is also important for the student to be able to label the items. Thus, items from Step 1 should be used, but only if they are desirable to the student. If new items are used, you must make sure that the student can label them.

Procedures

Use the Training and Corrections Procedures A, B, or C, realizing that considerable shaping may be required. See Figure 24 for this Step's training order.

SPECIFIC TRAINING INSTRUCTIONS

STEP 3a: TRAINER USES SPEECH AND SIGN

Phase I

1. Place each item, one at a time, in front of the student. Say and sign "what want." A correct response must include the word "want" plus the correct label for the item (e.g., "want car"). The student is given the item for correct responses. For example, if you place a cookie in front of the student and say and sign "what want," and the student responds "want cookie" then you give the student the cookie (a portion of it). If the item is non-consumable, let the student play with it before asking that it be given back for use in further trials. When you ask for the item back, say and sign "I want (item)" and then extend your hand.

   Partial responses by the student are of particular importance in this Step. If partial responses are given (e.g., labeling the item without first saying and signing "want"), you should emphasize the missing component when modeling the correct response (e.g., WANT [ITEM]). Some examples of typical trials, using the Total Communication Procedure Level are presented in Table 15 and Figures 25 and 26.

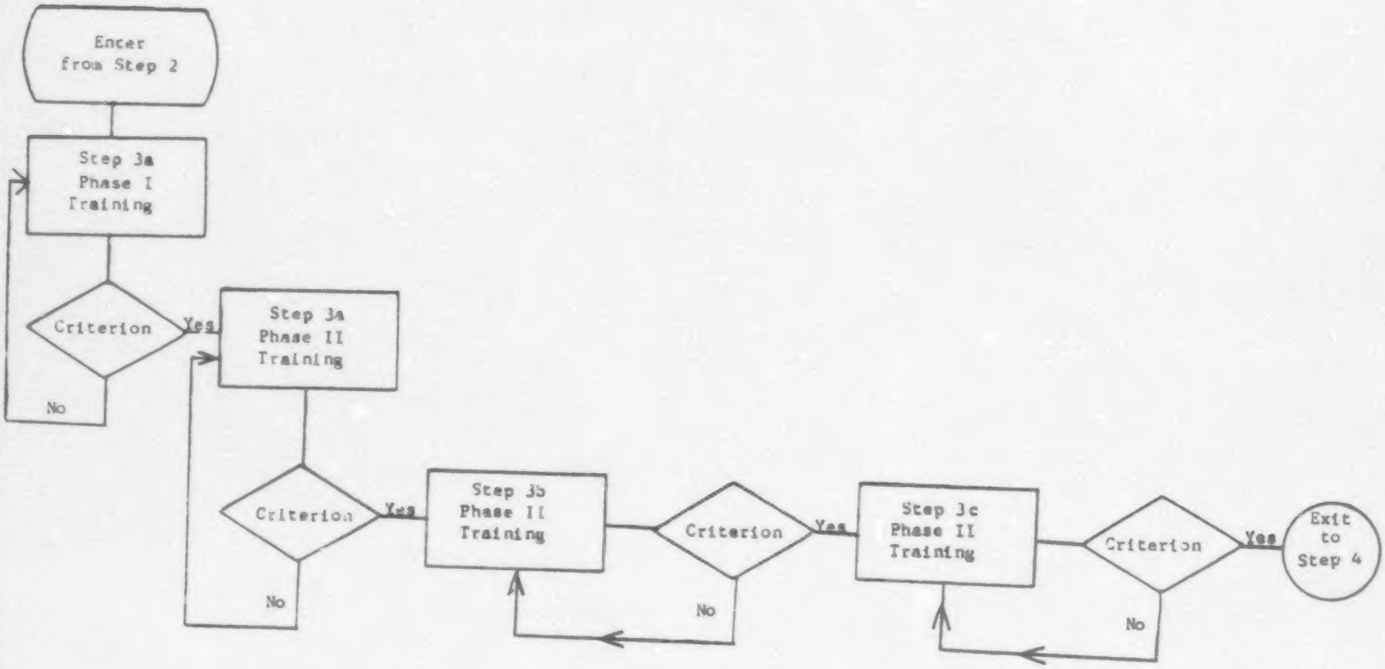
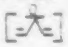
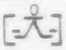
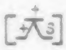
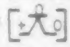


Figure 24: Order of Training for Step 3 of the Signing Program

Table 15
Example Trials* for Step 3a (Phase 1) Training
Level C Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Type 1 Trial 1 Type 2 Trial 3	
(Places nut in front of student.)	
what want / WHAT WANT?	nut / NUH
you say want nut / YOU NEED TO SAY WANT NOT.	want nut / WAH NUH
good try / THAT WAS A GOOD TRY.	
(Gives him a nut. Scores  on Scoring Form.)	
what want / WHAT WANT?	want nut / WAN NUH
much better / MUCH BETTER.	
(Gives student a nut. Goes on to the next trial.)	
Type 1 Trial 3 Type 2 Trial 5	
(Places cookie in front of student)	
what want / WHAT WANT	want cracker / WAN COOTIE
wrong David not cracker want cookie / WRONG, DAVID. THAT'S NOT A CRACKER. WANT COOKIE.	
(Scores  on Scoring Form.)	
what want / WHAT WANT	want cookie / WAN COOTIE
very good. You can have cookie / VERY GOOD. YOU CAN HAVE SOME COOKIE.	
(Gives student small piece of cookie.)	
Type 1 Trial 4 Type 2 Trial 8	
(Places book in front of student.)	
what want / WHAT WANT	want book / WAH BOO
terrific you can have book / TERRIFIC! YOU CAN HAVE THE BOOK.	
(Gives student book. Scores  on Scoring Form.)	
say want / SAY WANT	what / WAT
nice sound / OH! NICE SOUNDS	
here book book / HERE'S THE BOOK. SAY BOOK.	book / BOO
OK I want book / OK. I WANT BOOK.	(student returns book)
thank you / THANK YOU.	
(Here the trainer chose to engage in some vocal stimulation in an attempt to elicit clearer speech on the words. This may be done at any time during training.)	
Type 1 Trial 6 Type 2 Trial 2	
(Places jar of bubbles in front of student.)	
what want / WHAT WANT?	want bubble / (no response)
wrong. you say want bubble / WRONG. YOU HAVE TO SAY WANT BUBBLES.	
(Scores  on scoring form.)	
what want / WHAT WANT?	(no response) / WAN BUBO
(Does nothing. Goes on to next trial.)	

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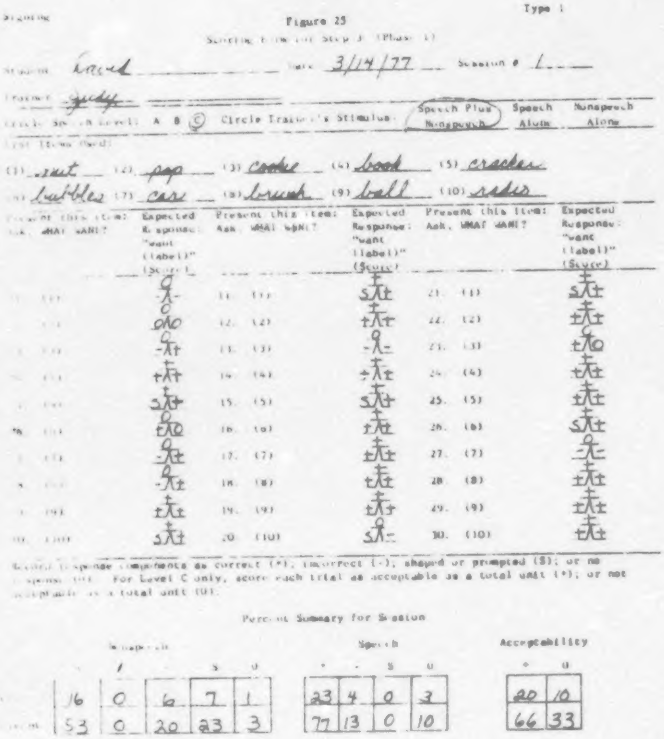
*Example trials for this Table correspond to those trials with astericks (*) on Example Scoring Forms, Figures 25 and 26.



Signing Type 1

Figure 25

Scoring Form for Step 3 (Phase 1)

Student David Date 3/14/77 Session # 1

Trainer Judy

Circle Speech Level: A B [✓ C] Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

List Items Used:

(1) nut (2) pop (3) cookie (4) book (5) cracker

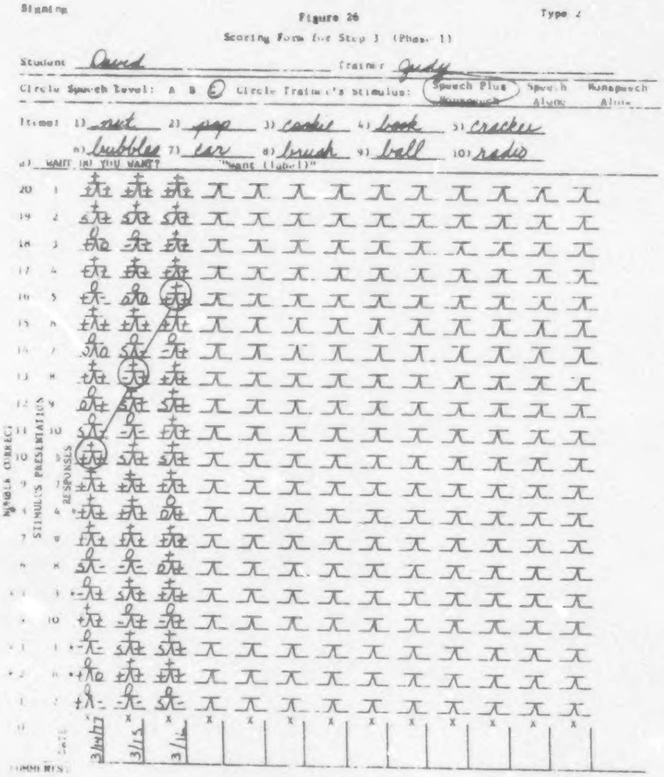
(6) bubbles (7) car (8) brush (9) ball (10) radio

Present this item: Ask, WHAT WANT?	Expected Response: "want (label)" (Score)	Present this item: Ask, WHAT WANT?	Expected Response: "want (label)" (Score)	Present this item: Ask, WHAT WANT?	Expected Response: "want (label)" (Score)
1. (1)		11. (1)		21. (1)	
2. (2)		12. (2)		22. (2)	
3. (3)		13. (3)		23. (3)	
4. (4)		14. (4)		24. (4)	
5. (5)		15. (5)		25. (5)	
6. (6)		16. (6)		26. (6)	
7. (7)		17. (7)		27. (7)	
8. (8)		18. (8)		28. (8)	
9. (9)		19. (9)		29. (9)	
10. (10)		20. (10)		30. (10)	

Record response components as correct (+), incorrect (-), shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

	Nonspeech					Speech				Acceptability	
	+	/	-	S	0	+	-	S	0	+	0
Score	16	0	6	7	1	23	4	0	3	20	10
Percent	53	0	20	23	3	77	13	0	10	66	33



Signing Type 2

Figure 26

Scoring Form for Step 3 (Phase 1)

Student David Trainer Judy

Circle Speech Level: A B [✓ C] Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) nut 2) pop 3) cookie 4) book 5) cracker

6) bubbles 7) car 8) brush 9) ball 10) radio

a) WHAT DO YOU WANT? "want (label)"

NUMBER CORRECT
STIMULUS PRESENTATION
RESPONSES
DATE
3/14/77
3/15
3/16
COMMENTS:

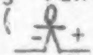
2. Present the ten items three times each in a session (for a total of 30 trials), as indicated on the Scoring Form for Step 3.

3. Count the number of correct (+), incorrect (-), shaped (S), and no-response (NR). Refer to 30-trial table in Appendix A for converting these numbers to percents, and enter percents on the bottom of the Scoring Form.

4. Record percent correct responses for each session on Summary Form for Step 3. (See sample Summary Form for Step 3. Continue training until criterion performance is reached (80 percent correct in one session or 12 in-a-row correct in one session). Remember that you may use either Type 1 or Type 2 data sheets as seen in Figures 25 and 26.

5. Advance the student to Step 3a (Phase II) when criterion performance is reached.

   NOTE: Use only items that the student really wants for this Step, and make sure to give the item to the student for correct responses. Training on this Step will be difficult and non-functional if these two considerations are not met.

Before describing Phase II, look at the example trials and training sessions for Phase I. David is a Level C student. This means that David can talk but has difficulty being understood. Therefore, he is required to not only talk but also sign so that he can be understood. Notice that on Trial 1 (Type 1), David did not say or sign "want," and therefore Total Communication Correction Procedures were employed. On Trial 3 (Type 1), David responded by signing "want cracker" and saying "want cookie." This is conflicting. This was therefore scored as (). After the trainer utilized the Correction Procedure, David responded correctly. However, the score was not changed. On Trial 4 (Type 1), David responded correctly, received the book to look at, and then the trainer requested that David give back the book.

Phase II

Phase II of this step has been incorporated in order to allow the student to choose what he or she wants, rather than the trainer doing so.

1. Place all 10 items in front of the student. Say and sign "See all these things. There are (name items)." Then say and sign "What want?"

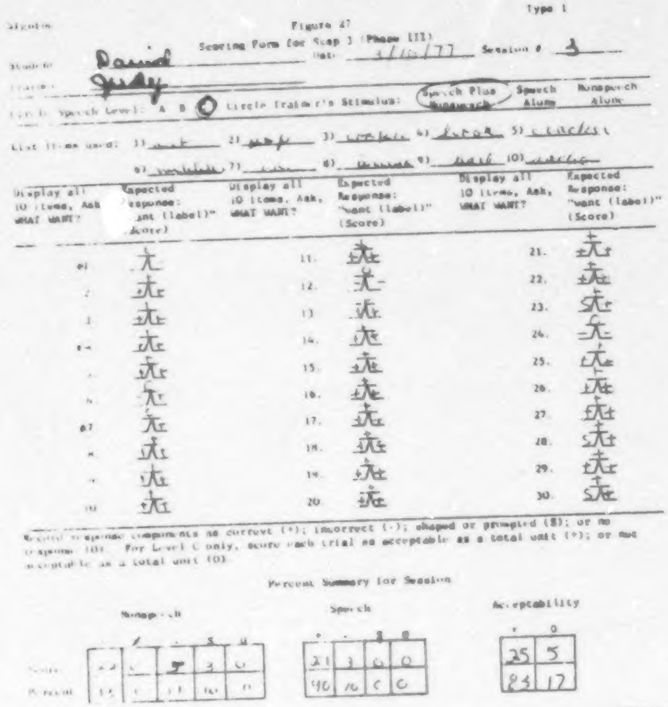
2. Follow the same procedures as in Step 3a (Phase I). Table 16 shows example Phase II training and is keyed to Figures 27 and 28.

3. Advance the student to Step 3b (Phase II) when criterion performance is reached.

Table 16
Example Trials* for Step 3a (Phase II) Training
Level C Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Type 1 Trial 1 Type 2 Trial 1	
(Displays all 10 items in front of student.)	
see all things / SEE ALL THESE THINGS? nut pop cookie book cracker bubble car brush ball radio / THERE ARE NUTS, POP, COOKIES, A BOOK, CRACKERS, BUBBLES, A CAR, A BRUSH, A BALL AND A RADIO.	
what want / WHAT WANT?	pop / POP
wrong want pop / WRONG. WANT POP. (Scores $\left[s\overset{0}{\wedge}m \right]$ on Scoring Form.)	
Let try again / LET'S TRY AGAIN. (Places pop a little closer to student.)	
what want / WHAT WANT?	want pop / WAH POP
much better - you have pop / MUCH BETTER! YOU CAN HAVE SOME POP. (Pours student a small amount of pop. Begins next trial.)	
Type 1 Trial 4 Type 2 Trial 4	
what want / WHAT WANT? very nice. you can have brush / VERY NICE. YOU CAN HAVE BRUSH.	want brush / WAH BUS
(Gives student brush. Scores $\left[+\overset{+}{\wedge}S \right]$ on Scoring Form.)	(Student brushes hair)
I want brush / I WANT BRUSH.	(Student returns brush)
thank you / THANK YOU.	
(Starts next trial.)	
Type 1 Trial 9 Type 2 Trial 7	
what want / WHAT WANT?	radio / WAH RAO
wrong want radio / WRONG. WANT RADIO	want radio / WAH RAO
much better / MUCH BETTER! (Scores $\left[-\overset{0}{\wedge}S \right]$ on Scoring Form.)	
what want / WHAT WANT?	want radio / (no response)
(Does nothing. Goes on to next trial.)	
Type 1 Trial 9 Type 2 Trial 9	
what want / WHAT WANT?	want pop / WAN POP
very nice have pop / VERY NICE. HAVE SOME POP. (Pours student some pop. Scores $\left[+\overset{+}{\wedge}S \right]$ on Scoring Form. Continues with training.)	

*Example trials for this Table correspond to those trials with astericks (*) on Example Scoring Forms, Figures 27 and 28.



Signing Type 1

Figure 27

Scoring Form for Step 3 (Phase III)

Student David Date 3/16/77 Session # 3

Trainer Judy

Circle Speech Level: A B [✓ C] Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

List items used: 1) out 2) pop 3) cookie 4) book 5) crackers 6) bubbles 7) car 8) brush 9) ball 10) radio

Display all 10 items, Ask, WHAT WANT?	Expected Response: "want (label)" (Score)	Display all 10 items, Ask, WHAT WANT?	Expected Response: "want (label)" (Score)	Display all 10 items, Ask, WHAT WANT?	Expected Response: "want (label)" (Score)
1		11.		21.	
2		12.		22.	
3		13.		23.	
4		14.		24.	
5		15.		25.	
6		16.		26.	
7		17.		27.	
8		18.		28.	
9		19.		29.	
10		20.		30.	

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

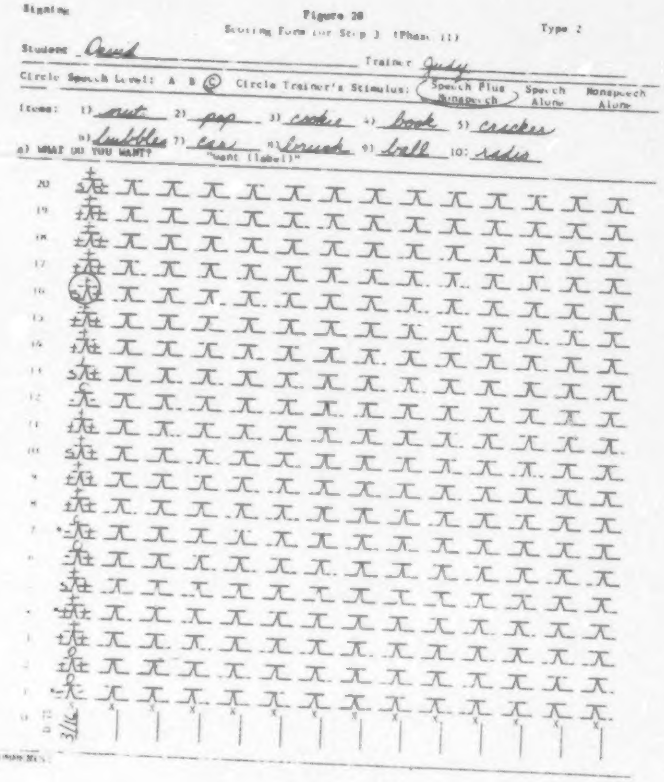
		+	-	S	0
Score	[illegible]	[illegible]	5	3	0
Percent	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Speech

+	-	S	0
27	3	0	0
90	10	0	0

Acceptability

+	0
25	5
83	17



Signing Type 2

Figure 28

Scoring Form for Step 3 (Phase II)

Student David Trainer Judy

Circle Speech Level: A B [✓ C] Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) out 2) pop 3) cookie 4) book 5) cracker 6) bubbles 7) car 8) brush 9) ball 10) radio

a) WHAT DO YOU WANT? "want (label)"

20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
3/16

00 91

STEP 3b: TRAINER USES SPEECH ALONE

These procedures remain the same as Phase II of 3a, except the trainer's stimulus is speech alone. Phase I is not used in this Step 3b training.

Advance the student to Step 3c when criterion performance is reached.

STEP 3c: TRAINER USES SIGN ALONE

These procedures remain the same, except the trainer's stimulus is sign alone. Advance the student to Step 4 when criterion performance is reached.

SUMMARY FORM

Figure 29 presents a sample Summary Form for Step 3.

PROGRAMMING FOR GENERALIZATION

When the student has reached criterion performance on Step 3 parents, parent-surrogates, teachers, etc., should periodically present the trained items to the student and ask "What want?" The item and verbal praise are given for a correct response.

Gradually "What want?" should be varied with the addition of related questions which are longer and use other vocabulary. For example: "What do you want?", "What would you like?", "What want eat?", "What want play with?", and "What do you want to drink?" These and any other related questions should be asked when and where it is appropriate to ask them. Refer to Table 12 for examples of functional and naturally occurring combinations of persons, places and objects.

Additional non-trained items should be included if the student maintains a high level of performance.

Parents, etc., should be especially sensitive to spontaneous requests by the student that include the newly trained response. Such spontaneous (or self-initiated) requests should be heavily reinforced.

Signing

Figure 29

Summary Form for Step 3

Speech Level: C Trainer's Stimulus: speech + signs

Student David Trainer Judy

Date Training Started 3/14/77 Date Training Ended 3/16/77 Total Sessions to Criterion 3

Percent of Correct Responses Across Session

	Session #																
"want (label)"	1	2															Speech Approximations
Phase I	66	83															"ah wan" + obj
Phase II			83														
Date	3/14	3/15	3/16														

(Circled percentages represent criterion based on 12 consecutive correct responses.)

STEP 4

(Asking, "What's that")

GENERAL INSTRUCTIONS

Training Goal

To teach the student to ask "What's that?" when confronted with items for which he or she does not know the label. This is training in self-extended control, meaning that the student expands his or her language skills by seeking information from others. In this Step the student is taught to ask a simple question, "What's that?", when encountering objects that cannot be identified with appropriate labels.

Training Items

At least 10 items that the student can label plus a large assortment of items for which the student probably does not know the labels. Suggested "novel" items include letters of the alphabet, numbers, shoe lace, tie, crayons, eye glasses, fork, knife, napkin, pencil, yo-yo, ruler, hammer, nail, guitar, fan, typewriter, popcorn, raisins, cotton ball, necklace.

Procedures

Use the Total Communication Procedures as before. Figure 30 presents a flow chart of the training sequence for Step 4. Notice that there is no Step 4a, 4b, or 4c. This Step is taught only once. The reason for this is that the trainer uses no verbal cue as a stimulus to the student's response.

SPECIFIC INSTRUCTIONS

This Step consists of three phases. Phase I involves procedures to identify and select "novel" items to be used in later training. In Phase II, imitation training for producing the question, "What's that?" is undertaken if the student has difficulty in signing and/or saying this response. Phase III is designed to teach the student to ask "What's that?" when presented with items that cannot already be labeled.

Phase I: Identifying Novel Items

This phase is a test to identify items that are "novel" to the student (i.e., items for which the student has no labels). As training continues through Step 4 (Phases II and III), Step 5 and Step 6, you may need to re-administer this test to identify additional novel items.

1. Gather at least 20 items that you do not think the student can label. Present these items intermixed with items you know the student can already label. The purpose of intermixing trained items with potentially

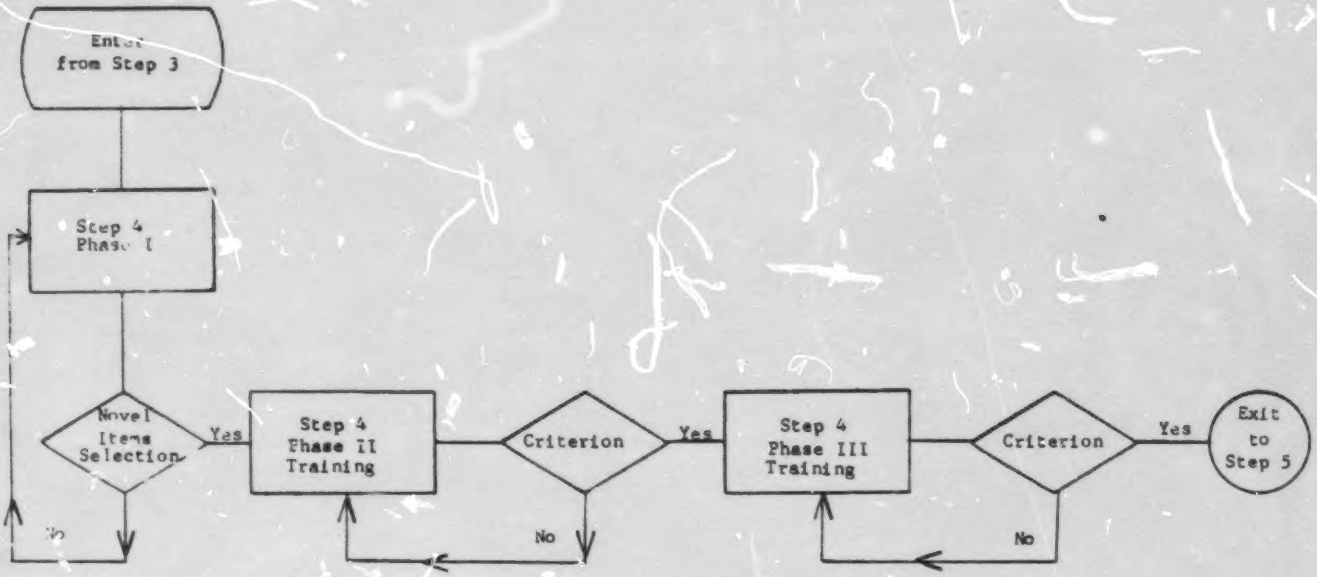


Figure 30: Order of Training for Step 4 of the Training Program

novel items is to allow the student to receive reinforcers for correctly labeling some items during the test, thus maintaining a consistent response rate. This helps insure that "novel" items can be accurately identified. Show the items, one at a time, saying and signing WHAT'S THAT?

2. Reinforce the student for correctly labeling any item, even if a correct response is given to a presumed novel item. However do not give the student the labels for presumed novel items if he or she does not label the items. Use the Total Communication Procedure if the student responds incorrectly or does not respond to an item which he or she has already been taught to label.

   Examples are provided in Table 17 to illustrate the procedure for identifying novel items. These examples correspond to Trials 1, 2, 3, and 7 on the Novel Item Selection Test Scoring Form for Step 4 (Figure 31).

3. Continue to test until you have identified at least 10 items that the student does not know the labels for, as indicated by incorrect or no-responses on the test. If you are unsure about a particular item, present it more than once during the test. Generally one session should be sufficient for this phase, although you may need to repeat it later. Identification of novel items for Level C students can sometimes take some time. You must identify 10 items which the student can neither sign nor say. This is critical if you are to teach the concept of question asking to gain new information.

4. When 10 novel items have been identified, advance the student to Phase II of Step 4.

Phase II: Imitation Training for "What's That"

Some students have difficulty making the signs "What's that?" The second phase of this Step is to train the student to better articulate this response in sign (and speech for Level C). The phase is not necessary if the student can already imitate "What's that?" so it is understood by a naive observer, even though perfect production is neither required nor expected.

1. When presenting each trial say and sign, DO THIS--WHAT'S THAT? Use the Total Communication Procedure for this imitation training as shown in the four examples in Table 18. These example trials are keyed to the Scoring Forms for Step 4 (Phase II), Figures 32 and 33.

2. Continue training in this phase until criterion is reached (80 percent correct responses or 12 consecutive correct responses in a session). Advance to 4b (Phase III) when the student achieves criterion performance.

   Notice in the Example trials on Trial 3, that the student gave a label rather than asking "What's that." Total Communication procedures were then employed.

Table 17

Example Trials* for Step 4 (Phase I) Training
Level A Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Trial 1	
(Places ball--a previously trained item--in front of student.)	
what that / WHAT'S THAT?	ball / (no response)
that right / THAT'S RIGHT! (Scores [+⋏] on Scoring Form.)	
Trial 2	
(Places yoyo--a presumed novel item--in front of student.)	
what that / WHAT'S THAT?	ball / (no response)
close good try / THAT'S CLOSE. IT WAS A GOOD TRY. (Scores [−⋏] on Scoring Form.)	
Trial 3	
(Places calendar--a presumed novel item--in front of student.)	
what that / WHAT'S THAT?	book / (no response)
not book good try / THAT'S NOT A BOOK, BUT THAT WAS A GOOD TRY. (Score [−⋏] on Scoring Form.)	
Trial 7	
(Places electric razor--a presumed novel item--in front of student.)	
what that / WHAT'S THAT? (Scores [0⋏] on Scoring Form.)	(no response) / (no response)

*Example trials for this Table correspond to those trials with asterisks (*) on Example Scoring Form, Figure 31.

Signing

Figure 31

Novel Item Selection Scoring Form for Step 4 (Phase I)

Name Joe Date 3/17/78

Trainer Judy

Session 1

Circle Speech Level: [✓ A] B C

Item Presented: (Ask, WHAT'S THAT?)	Score	Item Presented: (Ask, WHAT'S THAT?)	Score
* 1. bone	* +Λ	*16. nut	+Λ
2. yo yo	* −Λ	17. glue	−Λ
3. calendar	* −Λ	18. raisen	0Λ
4. shampoo	+Λ	19. stapler	−Λ
* 5. gum	−Λ	20. nail file	0Λ
6. bubbles	+Λ	*21. soap	+Λ
7. electric razor	* 0Λ	*22. car	+Λ
* 8. spoon	+Λ	23. eraser	−Λ
9. apple	−Λ	24. key	0Λ
10. candy	+Λ	*25. comb	+Λ
*11. hook	−Λ	26. whistle	−Λ
12. scissors	+Λ	27. rubber band	0Λ
*13. cup	+Λ	*28. chair	+Λ
14. ruler	0Λ	29. tape	−Λ
15. kleenex	−Λ	30. clock	0Λ

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

*Previously trained items presented in this trial

List items which the student could not label and on which he or she has not received prior training.

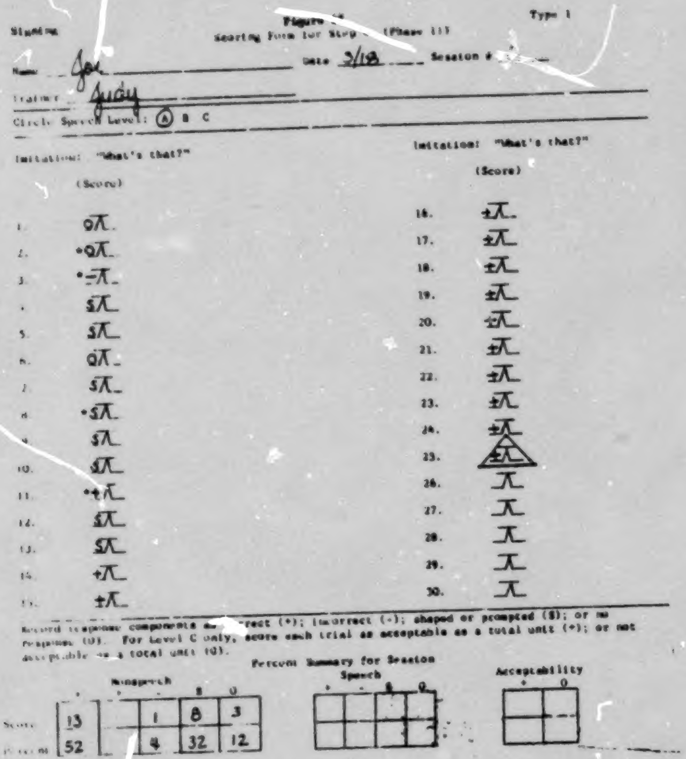
(1) yo yo (2) calendar (3) electric razor (4) gum (5) apple
(6) hook (7) ruler (8) kleenex (9) glue (10) raisen
(11) stapler (12) nail file (13) eraser (14) key (15) whistle
(16) rubber band (17) tape (18) clock (19) ______ (20) ______

Table 18

Example Trials* for Step 4a (Phase II) Training
Level A Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Type 1 Trial 2 — Type 2 Trial 2	
what that / DO THIS. WHAT'S THAT?	(no response) / (no response)
what that / WHAT'S THAT? (Physically puts student's hands into the signs.)	(Student allow trainer to put him through what that signs.)
(Score [0⋀].)	
what that / DO THIS. WHAT'S THAT?	(no response) / (no response)
(Does nothing, goes on to next trial.)	
Type 1 Trial 3 — Type 2 Trial 3	
what that / DO THIS. WHAT'S THAT?	chair / (no response)
wrong / WRONG. WHAT'S THAT? (Physically prompts the signs.)	(Student allow trainer to put him through what that signs.)
(Score [-⋀] on Scoring Form.)	
what that / DO THIS, WHAT'S THAT?	(brush right fist across left palm twice) / (no response)
good try very nice / GOOD TRY! VERY NICE!	
(Gives student a small piece of nut.)	
Type 1 Trial 8 — Type 2 Trial 8	
what that / DO THIS. WHAT'S THAT?	what (then right fist hits left palm) / (no response)
great you do much better / GREAT! YOU ARE DOING MUCH BETTER. (Score [S⋀] on Scoring Form.)	
Type 1 Trial 11 — Type 2 Trial 11	
what that / DO THIS. WHAT'S THAT?	what that / (no response)
terrific perfect / TERRIFIC! THAT WAS PERFECT! (Scores [+⋀], gives student a piece of nut.)	

*Example trials for this Table correspond to those trials with asterisks (*) on Example Scoring Form, Figures 32 and 33 .



Signing

Figure [illegible]

Scoring Form for Step [illegible] (Phase II)

Type 1

Name Joe Date 3/18 Session # [illegible]

Trainer Judy

Circle Speech Level: [✓ A] B C

Imitation: "What's that?"

(Score)

1. 0Λ
2. +0Λ
3. +-Λ
4. $Λ
5. $Λ
6. 0Λ
7. $Λ
8. +$Λ
9. $Λ
10. $Λ
11. ++Λ
12. $Λ
13. $Λ
14. +Λ
15. ±Λ

Imitation: "What's that?"

(Score)

16. ±Λ
17. ±Λ
18. ±Λ
19. ±Λ
20. ±Λ
21. ±Λ
22. ±Λ
23. ±Λ
24. ±Λ
25. ±Λ
26. Λ
27. Λ
28. Λ
29. Λ
30. Λ

Record response components as correct (+); incorrect (-); shaped or prompted ($); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

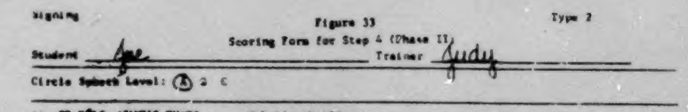
	+	+	-	$	0
Score	13		1	8	3
Percent	52		4	32	12

Speech

+	-	$	0

Acceptability

+	0



Signing

Figure 33

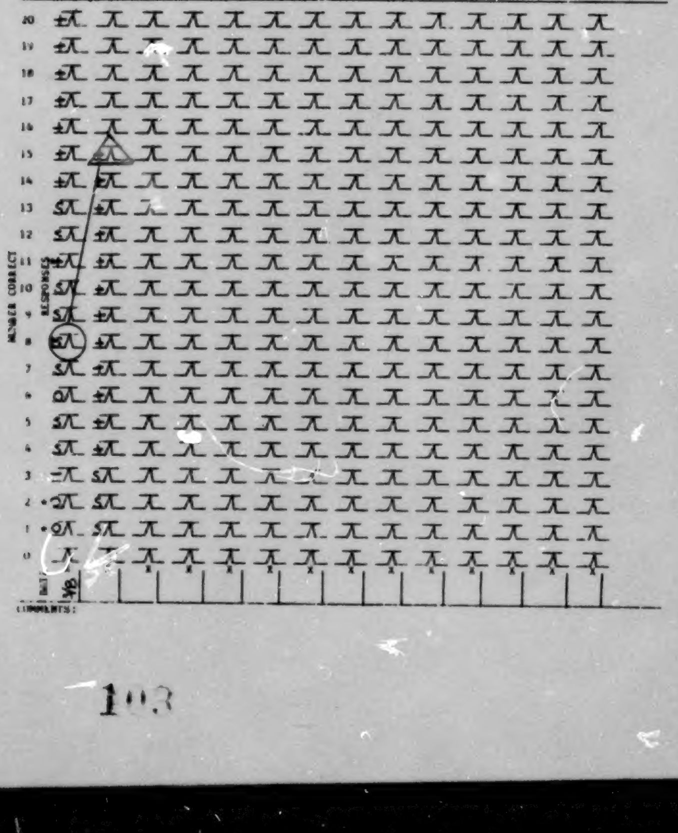
Scoring Form for Step 4 (Phase II)

Type 2

Student Joe Trainer Judy

Circle Speech Level: [✓ A] B C

#1 DO TILG, WHAT'S THAT? "What's that?"



Phase III: Asking, "What's That?"

The third phase is to teach the student to ask, "What's that?" when presented with novel items that are identified as such in Phase I.

1. Randomly hold the items, one at a time, in full view of the student (use the order of presentations given in the Scoring Form for Phase III). Allow at least 10-15 seconds for the student to ask, "What's that?" Say or sign nothing during this time.

2. Use the Total Communication Procedure for incorrect or no responses. It is important to recognize that Phase III of this Step introduces a new dimension as the student is being trained to respond to an item rather than a question or command. It may require a great deal of prompting and patience on your part to elicit the first response, "What's that?", in the presence of an unfamiliar item.

3. When the student does respond correctly (i.e., asks, "What's that?" when presented with a novel item) you must be sure to respond appropriately to the question (e.g., answer in sign and speech, THAT IS A HAMMER).

4. If the student correctly labels an item (instead of asking "What's that?") a new novel item should be substituted. A correct label is scored as plus (+). If the student incorrectly labels an item, say and sign NO, THAT IS NOT A (INCORRECT LABEL), ASK ME WHAT IT IS.

   See the example trials for Phase III, Table 19. These examples are keyed to three trials of the sample Scoring Forms for Phase III of Step 4, Figures 34 and 35.

5. Continue training until criterion performance is reached by the student. When counting correct responses, also include the appropriate labeling of a previously novel item should it occur.

   On the sample Summary Form for Step 4 presented in Figure 36 note that the Selection Test for Novel Items (Phase I) is not included as a training session. Also observe that session numbers for Phase III are continued from the session in which criterion performance was reached in Phase II.

6. When the student has reached criterion performance in Phase III, advance the student to Step 5 and initiate generalization training for Step 4.

PROGRAMMING FOR GENERALIZATION

When the student has completed Step 4 (5 and 6) parents, parent-surrogates, teachers, etc., should introduce the student to situations or environments containing interesting and novel stimuli.

Table 19

Example Trials* for Step 4a (Phase III) Training
Level A Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Type 1 Trial 3 — Type 2 Trial 2	
(Holds up yo yo.)	what that / (no response)
good asking yo yo / GOOD ASKING! THAT'S A YOYO. (Scores [+∧] on Scoring Form.)	
Type 1 Trial 4 — Type 2 Trial 7	
(Holds up hook.)	spoon / (no response)
wrong not spoon ask me what that / WRONG. THAT'S NOT A SPOON--ASK ME, WHAT'S THAT? (Scores [-∧] on Scoring Form.)	what that / (no response)
good asking--hook / GOOD ASKING. THAT'S A HOOK.	hook / (no response)
very good--hook / VERY GOOD—HOOK	hook / (no response)
Type 1 Trial 7 — Type 2 Trial 5	
(Holds up raisin. Waits 10 seconds.)	(no response) / (no response)
ask me what that / ASK ME, WHAT'S THAT? (Scores [0∧].)	(no response) / (no response)
(Does nothing. Goes on to next trial.)	

*Example trials for this Table correspond to those trials with asterisks (*) on Example Scoring Forms, Figures 34 and 35.

Figure 34 Type 1

Scoring Form for Step 4 (Phase III)

Student Joe Date 3/21/78 Session # 3

Trainer Judy

Circle Speech Level: [✓ A] B C

List Novel Items Used:

(1) yo yo (2) calendar (3) electric razor (4) gum (5) apple

(6) hook (7) ruler (8) kleenex (9) glue (10) raisen

Present this Item	Expected Response: "What's that?" (Score)	Present this Item	Expected Response: "What's that?" (Score)
1. [illegible]	0Λ	16. (10)	-Λ
2. (8)	±Λ	17. (4)	±Λ
3. [illegible]	• ±Λ	18. (7)	±Λ
4. [illegible]	• -Λ	19. (1)	±Λ
5. [illegible]	-Λ	20. (5)	±Λ
6. [illegible]	±Λ	21. (2)	±Λ
7. [illegible]	• 0Λ	22. (8)	±Λ
8. [illegible]	-Λ	23. (9)	±Λ
9. [illegible]	+Λ	24. (3)	-Λ
10. (10)	±Λ	25. (7)	±Λ
11. [illegible]	±Λ	26. (1)	±Λ
12. (9)	±Λ	27. (4)	±Λ
13. [illegible]	±Λ	28. (6)	-Λ
14. (6)	0Λ	29. (9)	±Λ
15. [illegible]	±Λ	30. (8)	-Λ

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

	Nonspeech +	-		S	0	Speech +	-	S	0	Acceptability +	0
No.	20		7	0	3	—					
%	67		23	0	10						

Signing

Figure 35 Type 2

Scoring Form for Step 4 (Phase III)

Student Joe Trainer Judy

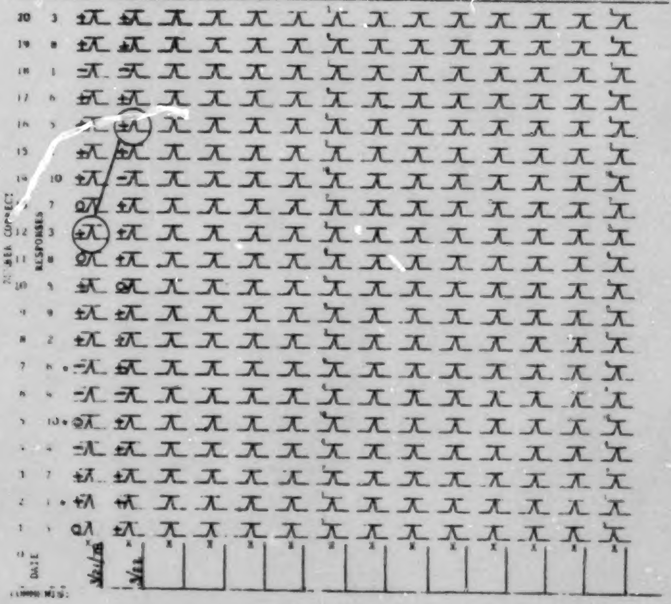
Circle Speech Level: [✓ A] B C

List Novel Items Used:

1) yo yo 2) calendar 3) electric razor 4) gum 5) apple

6) hook 7) ruler 8) kleenex 9) glue 10) raisen

a: (Holds item) "What's that?"



20	3	±Λ	±Λ
19	8	±Λ	±Λ
18	1	-Λ	-Λ
17	6	±Λ	±Λ
16	5	±Λ	±Λ
15	[illegible]	±Λ	±Λ
14	10	±Λ	-Λ
13	7	0Λ	±Λ
12	3	±Λ	±Λ
11	8	0Λ	±Λ
10	5	±Λ	0Λ
9	9	±Λ	±Λ
8	2	±Λ	±Λ
7	6	• -Λ	±Λ
6	4	-Λ	-Λ
5	10	• 0Λ	±Λ
4	4	-Λ	±Λ
3	7	±Λ	±Λ
2	1	• ±Λ	±Λ
1	5	0Λ	±Λ
0 DATE		[illegible]	[illegible]

Signing

Figure 36

Summary Form for Step 4

Speech Level: A

Student Joe

Trainer Judy

Date Training Started 3/17/78

Date Training Ended 3/22/78

Total Sessions to Criterion 4

Percent Correct Responses Across Sessions

Session #	1	2	3																Speech Approximations
Phase II (Imitation)	52																		
Phase III (Question)		67	83																
Date	3/18	3/21	3/22																

(Circled percentages represent criterion based on 12 consecutive correct responses.)

The parent, etc., should attempt to elicit the spontaneous question "What's that?" by holding and/or pointing to the object or saying and/or signing things like "Look at that.", "Wow!", "That's new.", "That's different.", "I haven't seen that one.", "Isn't that cute?", etc. If the student correctly labels the object the response should be reinforced. If the student correctly asks "What's that?" the parent, etc., should supply the name of the object and reinforce the student specifically for asking "What's that?". Examples: "Good asking" or "That was nice asking."

Trips to the zoo, department stores, parks, amusement parks, different classrooms, bowling alleys, restaurants, tours of businesses and any other stimulating or unusual areas are recommended to facilitate the response.

When the student does spontaneously ask "What's that?" the parent, etc., should remember to communicate this with the student's trainer describing the context in which the student used the response.

STEP 5

(Acquiring New Object Names)

GENERAL INSTRUCTIONS

Training Goal

To teach the student to ask "What's that?" when he or she does not know the label of an item, and to supply the label when he or she does know it. To achieve this goal, it is necessary for the student to remember the labels of items about which the question, "What's that?" has already been asked, and to shift from asking the question to giving the correct label. This indicates that the student is making the connection between the question and the response, and is adding the label or his or her memory. Thus, this Step is concerned with integration.

Training Items

Six items the student can label and six novel items.

Procedures

Use the Total Communication Procedures. See Figure 37 for this Step's training order.

SPECIFIC INSTRUCTIONS

1. Openly display on the table or floor the six known (already trained) items and six novel items. If necessary, repeat the Novel Item Selection Test (Phase I) of Step 4 to identify new novel items.

2. Randomly present the items, one at a time, to the student without saying or signing anything. Use the order given on the Scoring Forms for Step 5 Figures 38 and 39 in presenting the items.

3. The student should make one of two correct responses. First, (previously trained) items should be correctly labeled (e.g., you hold up a ball and the student signs "ball"). Secondly, the student should ask, "What's that?" when presented with a novel item (i.e., an item for which he or she does not know the label). As in Step 4, you respond to the student's question, "What's that?" by labeling the item for the student; e.g., THAT IS A "D" (when the novel item, letter "D" was used).

4. If eventually the student correctly labels a previously determined novel item, a new novel item should be substituted, and the newly acquired label is used to replace one of the older known items on the list. The student is then expected to correctly label this item rather than ask, "What's that?" The student will probably make errors when the newly acquired item is presented in subsequent trials. The

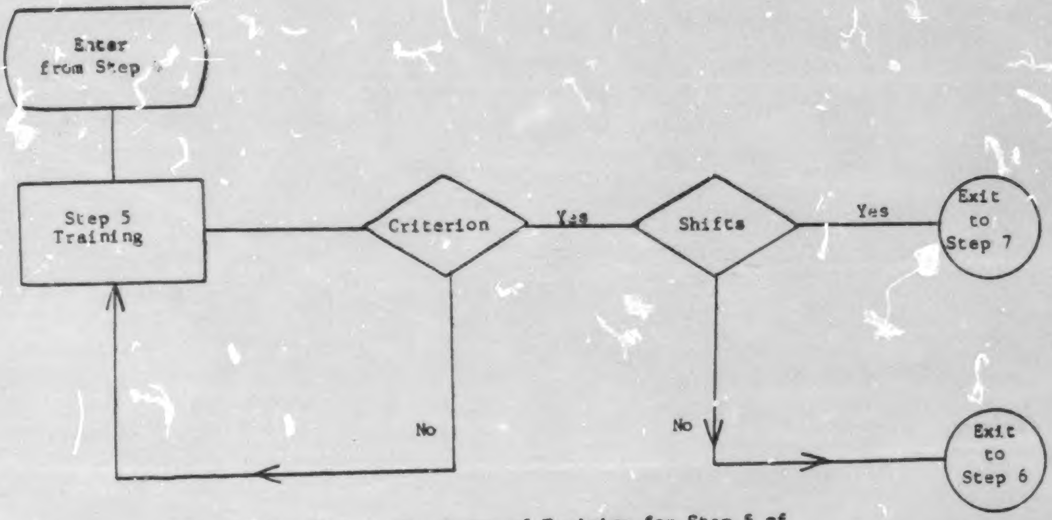


Figure 37: Order of Training for Step 5 of the Signing Program

Table 20

Example Trials* for Step 5 Training
Level B Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Type 1 Trial 5 Type 2 Trial 8	
(Holds up chip--a previously trained item.)	what that / UH DUH
wrong that chip / WRONG--YOU KNOW THAT'S A CHIP. (Scores [-⋀-] on Scoring Form.)	
(Hold up chip.) (Does nothing--goes on to next trial.)	what that / UH DUH
Type 1 Trial 6 Type 2 Trial 7	
(Holds up key--a novel item.)	what that / UH DUH
good asking key / GOOD ASKING--THAT'S A KEY. (Scores [+⋀S] on Scoring Form.)	
Type 1 Trial 8 Type 2 Trial 5	
(Holds up watch--a novel item.)	what that / UH DUH
very good watch / VERY GOOD--THAT'S A WATCH (Scores [+⋀S]).	(touches wrist) / AH
good try watch / GOOD TRY--IT'S A WATCH.	

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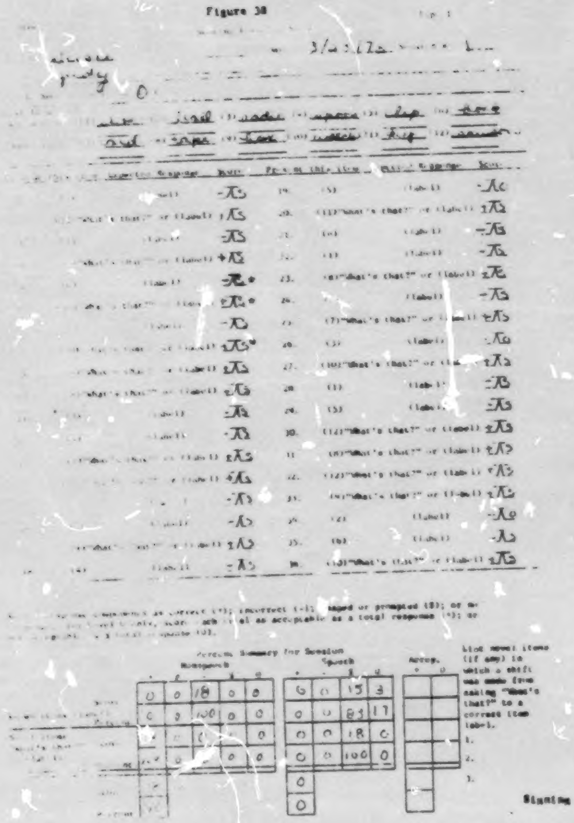
*Example trials for this Table correspond to those trials with asterisks (*) on Example Scoring Forms, Figures 38 and 39.

Figure 38



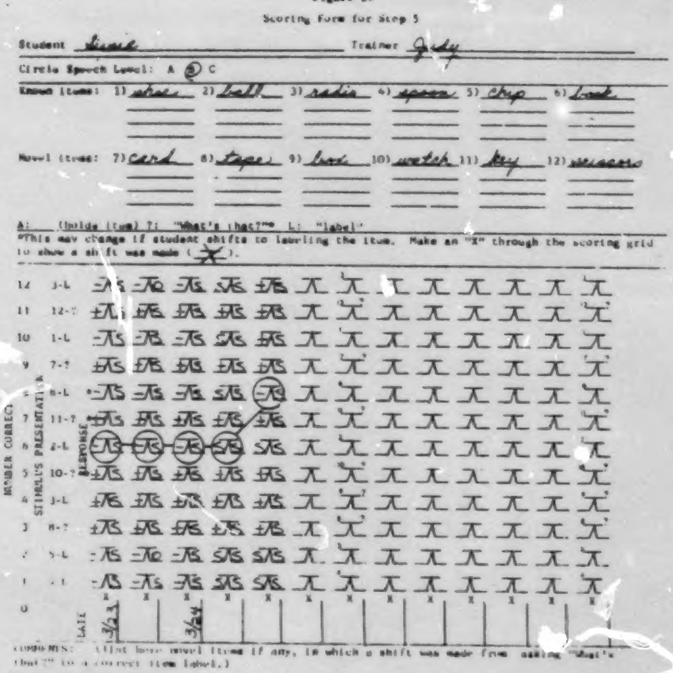
3/23/72

Signing

Figure 39

Type 2

Scoring Form for Step 5



Student Susie Trainer Judy

Circle Speech Level: A [✓ B] C

Known items: 1) shoe 2) ball 3) radio 4) spoon 5) chip 6) book

Novel items: 7) card 8) tape 9) box 10) watch 11) key 12) scissors

A: (holds item) ?: "What's that?"* L: "label"

*This may change if student shifts to labeling the item. Make an "X" through the scoring grid to show a shift was made.

COMMENTS: (List here novel items if any, in which a shift was made from asking "What's that?" to a correct item label.)

purpose of treating it like the older known items is to allow the student the opportunity to more thoroughly learn the item label when you use the Total Communication Correction Procedure. The correct labeling of a previously novel item is referred to as a "shift." The number of shifts made are important in determining whether or not the student is to receive training on Step 6 (the criterion for determining this is discussed below). It is therefore recommended that, for novel item trials on the Scoring Form, you indicate whether the student asked the question, "What's that?" or labeled the item. You may do this by drawing a large "X" through the scoring grid for that trial.

5. The student will sometimes give an incorrect label when presented with a novel item. In these cases, say and sign THAT'S NOT RIGHT. ASK ME WHAT IT IS. This is the same procedure used in Step 4. However, a student may attempt to label a previously novel item, but his or her speech and sign articulation will be poor. Be fairly lenient in scoring a (+) since the student has made the shift (the important thing) but is having trouble saying and signing the word.

6. A student will occasionally also incorrectly label a known item or give no response. When this happens use the Total Communication Correction Procedure to correct the error.

   The examples in Table 20 illustrate the training procedures for this Step. These examples are keyed to three trials on the Sample Scoring Forms for Step 5 (Figures 38 and 39).

7. For Type 1 forms, record percent responses (+, -, S and NR) using the 36-trial conversion Table in Appendix A. Write in these percents in the "Percent Summary for Session" grid at the bottom of the Scoring Form for Step 5, Figure 38. Also note that space is provided to record the percent responses for both the 18 trained items presented in the session, and the 18 novel item presentations in the session. These percents are computed only for your benefit as a trainer to help assess student progress. Since no conversion table is provided in the Appendix for 18 trials, these percents must be computed by hand by dividing each of the raw scores by 18 and multiplying by 100 (e.g., 14/18=.78 X 100=78% correct responses for known items).

   For the Type 2 Forms, simply count up the number of correct responses and circle that number's grid on the grid column.

8. Enter the percent correct responses for Known Items, Novel Items, and Total Items in the Summary Form for Step 5 (Figure 40). In this particular example, the 88 percent correct for Known Items, the 100 percent correct for Novel Items, and the 94 percent correct for Total Items are all recorded under Session 3 in the sample Summary Sheet for Step 5.

9. List at the bottom of the Scoring Forms for Step 5 novel items (if any)

in which a shift was made from asking "What's that?" to correct item labeling. The same item is also written in at the bottom of the Summary Form for Step 5 (Figure 40).

10. Continue training until criterion performance (80 percent or more correct responses or 12 consecutive correct responses in a session) is achieved. Criterion is based only on total correct responses for a session.

11. If the student has made the "shift" on three or more novel items by the time criterion performance is reached, you need not train Step 6 and the student can be advanced to Step 7. If the student has made a shift on less than three items by the time criterion performance is reached, then proceed to train on Step 6. Step 6 is specifically designed to train the student to remember the labels that are given in response to the question, "What's that?" and therefore may not be needed if the students remember them already. In the sample Summary Form for Step 5, the student made no shifts so training would proceed to Step 6.

12. Note that Step 5 does not include a Programming for Generalization section. Continue generalization training with Step 4.

Figure 40
Summary Form for Step 5
Speech Level: ______

Student Susie

Trainer Judy

Date Training Started 3/23/78 Date Training Ended 3/24/78 Total Sessions to Criterion 3

Percent Correct Responses Across Sessions

	Session #																	
	1	2	3															Speech Approximations
Known Items (label)	0	0	88															so / buh / o / puh / bah
Novel Items "What's that?" or (label)	100	100	100															uh, dah
Total	50	50	94															
Date	3/23	3/24	3/25															

List (if any) previously novel items that the student begins to correctly label (i.e., makes a "shift")

Item:	Session #:	Item:	Session #:

(Circled percentages represent criterion based on 12 consecutive correct responses.)

STEP 6

(Memory for New Item Labels)

GENERAL INSTRUCTIONS

Training Goal

To train the student to ask the question, in sign and best speech approximation, "What's that?" when presented with novel items, to remember the labels given in response to the question, and to shift to the correct labeling of these previously novel items. This Step is concerned with integration (e.g., teaching the student to discriminate when to seek appropriate information by asking a question, and when to respond with appropriate labels when the information already exists).

Training Items

Three items the student can already label and six to ten novel items.

Procedures

Total Communication Procedure. This Step's criterion is different from previous Steps. Criterion for exit from Step 6 is reached when the student successfully labels three novel items within two training sessions. Refer to Figure [illegible]. for a flow chart of this Step's training.

SPECIFIC INSTRUCTIONS

1. Openly display three known (already trained) and three novel items to the student. (If necessary, use the Novel Item Selection [Phase I] of Step 4 to identify new novel items.)

2. Present the items (either hold it up or point to it) one at a time, following the order given on the Scoring Forms for Step 6.

3. The student must supply the correct labels for the known items (e.g., "shoe") and must either ask, "What's that?", or correctly label the novel items.

4. When you respond to the student's question, "What's that?", for novel items you should take special care to tell the student the correct label for that item (e.g., CAN, THAT IS A CAN). You then ask the student to also label the item (e.g., THAT IS A CAN--TELL ME WHAT IT IS). You can reinforce the student for both asking the question ("What's that?") and for labeling the item in response to the command, i.e., TELL ME WHAT IT IS.

5. This procedure continues until the student spontaneously and correctly labels the previously novel item, while dropping the question, "What's that?", for that particular item (i.e., until the student makes a "shift"). At this point, the previously novel item now becomes a known item and a new novel item is added to the list in the blank

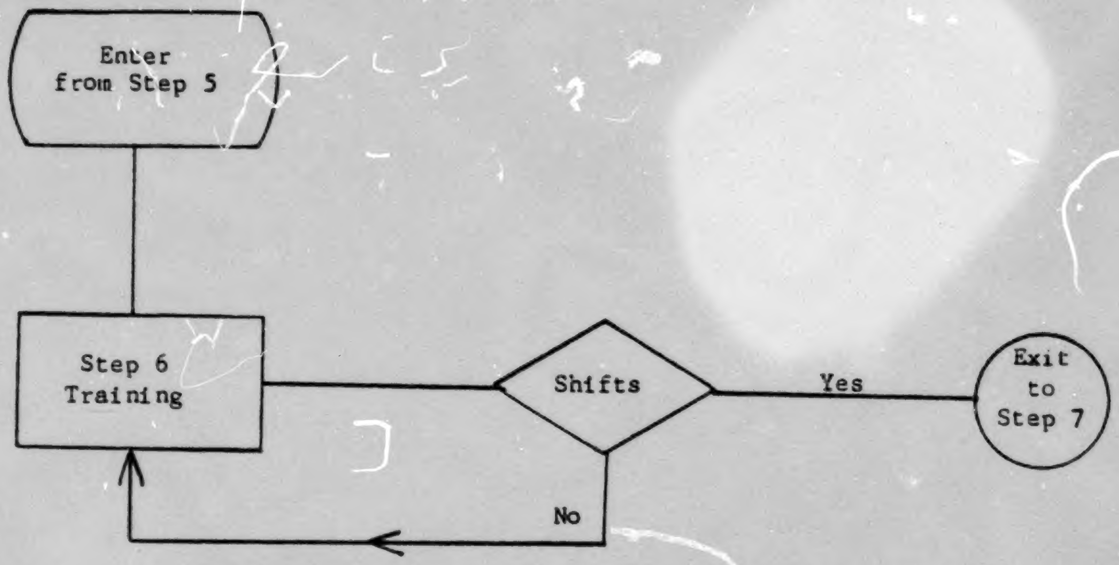


Figure 41: Order of Training for Step 6 of the Signing Program

space provided on the Scoring Forms for Step 6. When the new novel item is added, one of the original known items is dropped, retaining the newly labeled item as one of the three known items.

6. If the student should incorrectly label a novel item, you should say NO, IT IS NOT A (INCORRECT LABEL), ASK ME WHAT IT IS. You then prompt the student to ask "What's that?" and the original procedure is followed.

7. When the student incorrectly labels a known item, you follow the usual Training and Correction Procedure.

8. The scoring procedures for Step 6 deviate somewhat from previous Steps. As usual, each trial is scored for correct (+); incorrect (-); shape (S); and no-response (0). These scores, however, are kept only for your benefit as the trainer and do not bear directly on criterion performance for the Step (to be discussed later). The major consideration for this Step is whether or not the student makes the "shift" for novel items, i.e., correctly labels the item rather than continuing to ask, "What's that?". Accordingly for those trials in which novel items are presented, spaces are available on the Type 1 Forms for marking when the student does not make a "shift" (continues to ask, "What's that?") or when the student makes the "shift" by correctly labeling the novel item. You merely mark an (X) in the appropriate column if no shift was made, or mark an (X) in the other column if a shift was made. On the Type 2 Form, mark an "X" through the scoring grid if a "shift" occurs. Remember, however, to be recorded as a "shift," the correct item label must be given by the student.

   The example trials are presented to illustrate the training and scoring procedures for Step 6 for all three speech Levels. Steps 4, 5, and 6 Training can vary markedly depending on the student's speech skills. The Level A student is shown in Table 21 (Figures 42 and 43). The Level B student is shown in Table 22 (Figures 44 and 45). Table 23 (Figures 46 and 47) show a Level C student.

9. Criterion performance for this Step differs from the usual criterion levels described for the preceding Steps. Criterion performance for Step 6 is reached when the student successfully labels three novel items within two training sessions. The sample Summary Forms (Figures 48 and 49) for Step 6 illustrate how criterion is determined. Criterion was not reached in session 1 of either example because there were no shifts. In Figure 48, during the 9th session, there was one shift; the 10th session, no shifts, but the next session 3 shifts, which indicated criterion.

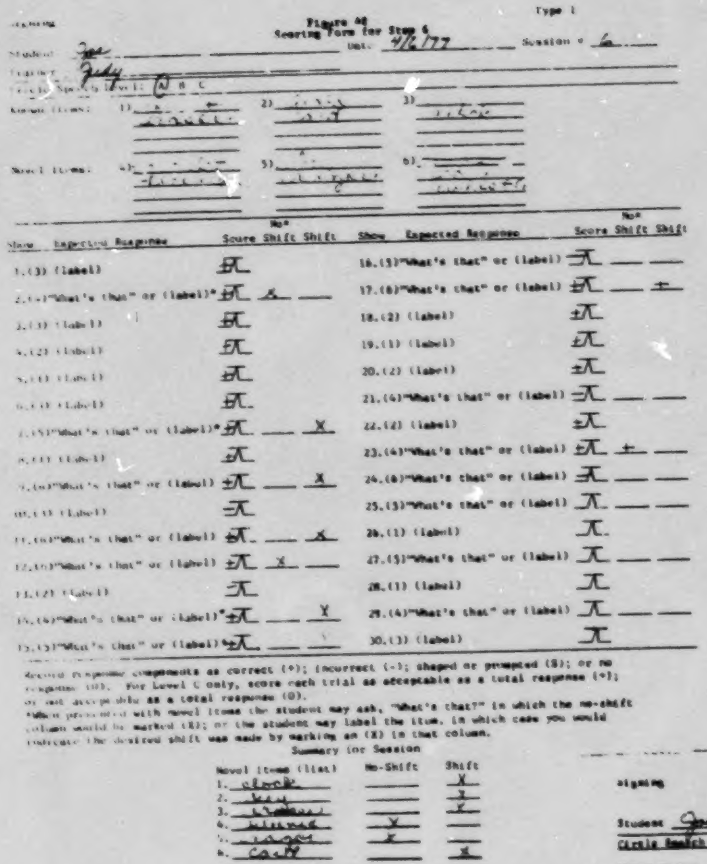
10. Advance the student to Step 7 when criterion performance is reached. Step 6 does not include Programming for Generalization instructions. Continue Programming for Generalization instructions from Step 4.

Table 21

Example Trials* for Step 6
Level A Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Type 1 Trial 2 Type 2 Trial 1	
(Holds up clock--a novel item.)	what that / (no response)
good asking. clock / GOOD ASKING IT'S A CLOCK. (Scores [±⋀]).	(right index circles near side of 's' hand) / (no response)
good sign--clock / GOOD SIGN--THAT'S CLOCK.	
Type 1 Trial 14 Type 2 Trial 6	
(Holds up clock.)	(right index circles near side of 'o' hand) / (no response)
good job that clock / GOOD JOB. THAT'S A CLOCK. (Scores [±⋀] and marks [X] in the shift column on Type 1 Trial 7. Makes [X] through the scoring grid on Trial 6, Type 2. Because a shift was made, clock becomes a known item. Cross out one of the known items and replace it with clock. Replace clock with kleenex, an item from the list of novel items.)	
Type 1 Trial 15 Type 2 Trial 7	
(Holds up key—novel item.)	key / (no response)
very good—good key / VERY GOOD—GOOD SIGN FOR KEY. (Scores [±⋀] on Scoring Form. Type 1—mark [X] in shift column. Type 2— mark [X] through scoring grid. Key is now moved to a known item. Replace it with razor, from the novel item list.)	

*Example trials for this Table correspond to those trials with asterisks (*) on Example Scoring Forms, Figures 42 and 43.



signing

Type 1

Figure 42
Scoring Form for Step 6

Student Joe
Date 4/12/77
Session # 6
Trainer Judy
Circle Speech Level: [✓ A] B C

Known Items: 1) [illegible] 2) [illegible] 3) [illegible]

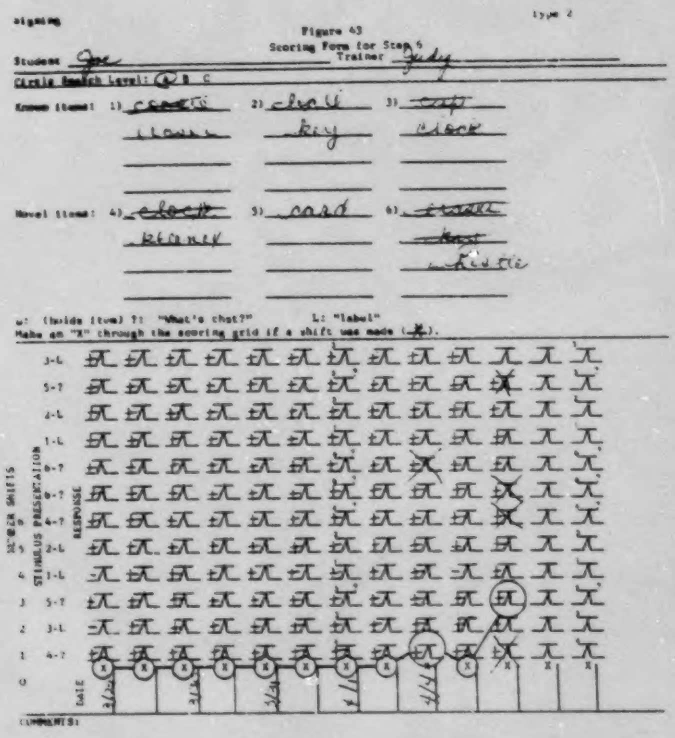
Novel Items: 4) [illegible] 5) [illegible] 6) [illegible]

Show Expected Response	Score	No* Shift	Shift	Show Expected Response	Score	No* Shift	Shift
1.(3) (label)				16.(5)"What's that" or (label)			
2.(4)"What's that" or (label)*		X		17.(6)"What's that" or (label)			+
3.(3) (label)				18.(2) (label)			
4.(2) (label)				19.(1) (label)			
5.(1) (label)				20.(2) (label)			
6.(1) (label)				21.(4)"What's that" or (label)			
7.(5)"What's that" or (label)*			X	22.(2) (label)			
8.(1) (label)				23.(4)"What's that" or (label)		+	
9.(6)"What's that" or (label)			X	24.(6)"What's that" or (label)			
10.(3) (label)				25.(5)"What's that" or (label)			
11.(6)"What's that" or (label)			X	26.(1) (label)			
12.(5)"What's that" or (label)		X		27.(5)"What's that" or (label)			
13.(2) (label)				28.(1) (label)			
14.(4)"What's that" or (label)*			X	29.(4)"What's that" or (label)			
15.(5)"What's that" or (label)*				30.(3) (label)			

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total response (+); or not acceptable as a total response (0).
*When presented with novel items the student may ask, "What's that?" in which the no-shift column would be marked (X); or the student may label the item, in which case you would indicate the desired shift was made by marking an (X) in that column.

Summary for Session

Novel Items (list)	No-Shift	Shift
1. clock		X
2. key		X
3. [illegible]		X
4. [illegible]	X	
5. [illegible]	X	
6. card		X



signing

type 2

Figure 43
Scoring Form for Step 6

Student Joe
Trainer Judy
Circle Speech Level: [✓ A] B C

Known Items: 1) [illegible] 2) chair 3) ~~cup~~
[illegible] key clock

Novel Items: 4) ~~clock~~ 5) card 6) ~~[illegible]~~
blanket ~~key~~
whistle

#: (Inside item) ?: "What's that?" L: "label"
Make an "X" through the scoring grid if a shift was made (X).

NUMBER SHIFTS
STIMULUS PRESENTATION
RESPONSE
3-L
5-?
4-L
1-L
6-?
6-?
4-?
2-L
1-L
5-?
3-L
4-?
DATE
COMMENTS:

Table 22

Example Trials* for Step 6
Level B Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Type 1 Trial 9 Type 2 Trial 7	
(Shows powder--a novel item.)	what that / UH DUH
good asking powder / GOOD ASKING! IT'S POWDER. (Scores [+/\S]. On Type 1 Form, mark [X] in NO SHIFT column.)	powder / UH
right powder / RIGHT, IT'S POWDER.	
Type 1 Trial 11 Type 2 Trial 8	
(Shows powder.)	powder / UH
good for you that powder / GOOD FOR YOU, THAT'S POWDER! (Shakes some powder onto student's arm. Scores [+/\S] on Scoring Form. On Type 1, mark [X] in SHIFT column. On Type 2 mark [X] through scoring grid to show shift. Powder now replaces one of the known items and curler, another novel item, is now the #6 novel item.)	
Type 1 Trial 7 Type 2 Trial 3	
(Shows mirror—a novel item.)	mirror /
very nice you remember mirror / VERY NICE. YOU REMEMBERED THAT'S A MIRROR. (Gives student mirror. Scores [+/\O] on Scoring Form. To identify shift on Type 1 Form, mark [X] in SHIFT column. On Type 2 Form, mark [X] through scoring grid.)	
I want mirror / I WANT MIRROR.	(Gives mirror to trainer.)
thank you / THANK YOU.	

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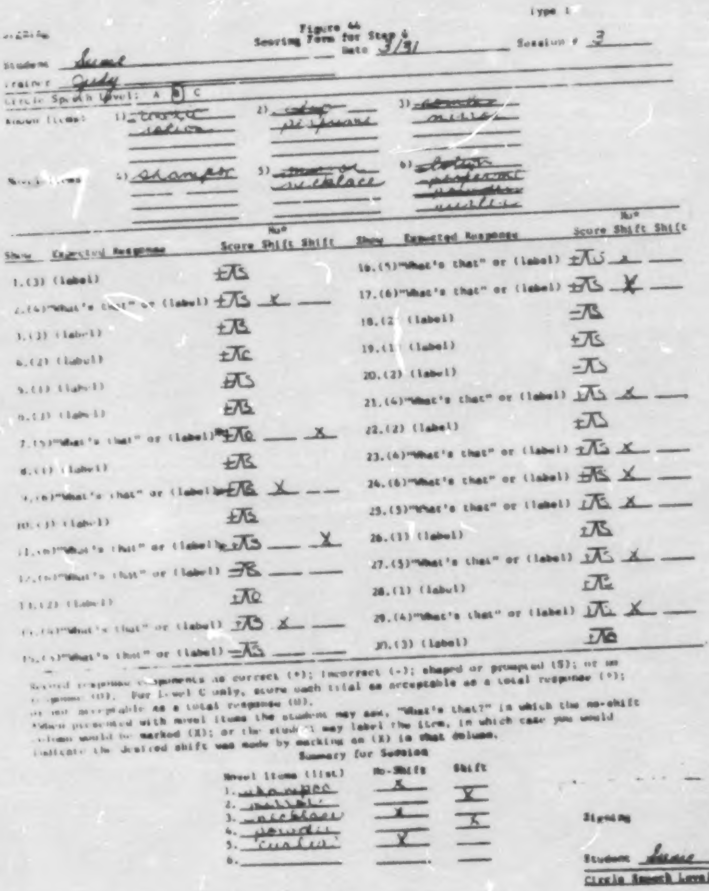
*Example trials for this Table correspond to those trials with asterisks (*) on Example Scoring Forms, Figures 44 and 45.



Signing Figure 44 Type 1

Scoring Form for Step 6

Date 3/31 Session # 3

Student Susie

Trainer Judy

Circle Speech Level: A [✓ B] C

Known items: 1) ~~[illegible]~~ lotion 2) ~~[illegible]~~ perfume 3) ~~[illegible]~~ mirror

Novel items: 4) shampoo 5) ~~[illegible]~~ necklace 6) ~~lotion~~ ~~perfume~~ ~~[illegible]~~ curlers

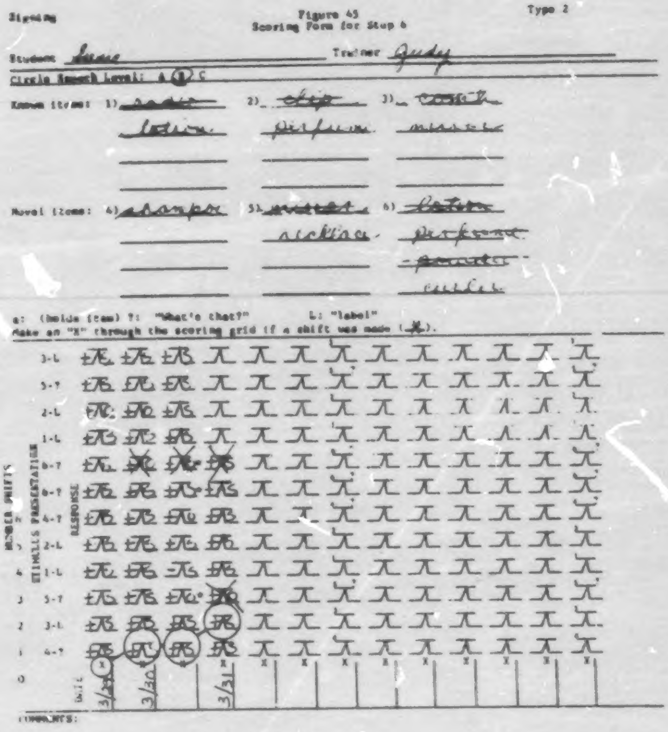
Show	Expected Response	Score	No* Shift	Shift
1.(3)	(label)	±ΛS		
2.(4)	"What's that" or (label)	±ΛS	X	
3.(3)	(label)	±ΛS		
4.(2)	(label)	±ΛC		
5.(1)	(label)	±ΛS		
6.(3)	(label)	±ΛS		
7.(5)	"What's that" or (label)	±ΛO		X
8.(1)	(label)	±ΛS		
9.(6)	"What's that" or (label)	±ΛS	X	
10.(3)	(label)	±ΛS		
11.(6)	"What's that" or (label)	±ΛS		X
12.(6)	"What's that" or (label)	=ΛS		
13.(2)	(label)	±ΛO		
14.(4)	"What's that" or (label)	±ΛS	X	
15.(5)	"What's that" or (label)	=ΛS		
16.(5)	"What's that" or (label)	±ΛS	X	
17.(6)	"What's that" or (label)	±ΛS	X	
18.(2)	(label)	=ΛS		
19.(1)	(label)	±ΛS		
20.(2)	(label)	=ΛS		
21.(4)	"What's that" or (label)	±ΛS	X	
22.(2)	(label)	±ΛS		
23.(6)	"What's that" or (label)	±ΛS	X	
24.(6)	"What's that" or (label)	±ΛS	X	
25.(5)	"What's that" or (label)	±ΛS	X	
26.(1)	(label)	±ΛS		
27.(5)	"What's that" or (label)	±ΛS	X	
28.(1)	(label)	±ΛC		
29.(4)	"What's that" or (label)	±ΛC	X	
30.(3)	(label)	±ΛO		

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total response (+); or not acceptable as a total response (0).

*When presented with novel items the student may ask, "What's that?" in which the no-shift column would be marked (X); or the student may label the item, in which case you would indicate the desired shift was made by marking an (X) in that column.

Summary for Session

Novel Items (list)	No-Shift	Shift
1. shampoo	X	X
2. mirror		
3. necklace	X	X
4. powder		
5. curlers	X	
6.		



Signing Figure 45 Type 2

Scoring Form for Step 6

Student Susie Trainer Judy

Circle Speech Level: A [✓ B] C

Known items: 1) ~~[illegible]~~ lotion 2) ~~[illegible]~~ perfume 3) ~~[illegible]~~ mirror

Novel items: 4) shampoo 5) ~~[illegible]~~ necklace 6) ~~lotion~~ ~~perfume~~ ~~[illegible]~~ curlers

a: (holds item) ?: "What's that?" L: "label"

Make an "X" through the scoring grid if a shift was made (X).

NUMBER SHIFTS
STIMULUS PRESENTATION
RESPONSE
3-L
5-?
2-L
1-L
6-?
6-?
4-?
2-L
1-L
5-?
3-L
4-?
Date
3/29
3/30
3/31

COMMENTS:

Table 23

Example Trials* for Step 6 Training
Level C Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Type 1 Trial 2 Type 2 Trial 1	
(Holds up electric razor—a novel item.)	what that / WUH DAT?
good asking razor / GOOD ASKING! IT'S A RAZOR. (Scores $\left[\underline{\pm}\overset{+}{\overline{\wedge}}\underline{S}\right]$ on Scoring Form. On Type 1 Scoring Sheet, mark [X] in NO SHIFT column.)	
	('u' hand flicks off cheek twice) / AZUR
that very good/THAT'S VERY GOOD!	
Type 1 Trial 14 Type 2 Trial 6	
(Holds up electric razor)	('u' hand flicks off cheek twice) / AZUR
great that razor / GREAT! THAT'S A RAZOR. (Gives student sip of pop. Scores $\left[\underline{S}\overset{+}{\overline{\wedge}}\underline{S}\right]$ on Scoring Form. To identify shift on Type 1, mark [X] in SHIFT column; on Type 2 mark [X] through scoring grid.)	
Type 1 Trial 15 Type 2 Trial 11	
(Shows lotion—a novel item.)	(Shakes right 'L' hand over 'L' palm.) / SHUN
terrific lotion / TERRIFIC, THAT'S LOTION! (Scores Let student have lotion.)	
(To identify shift on Type 1 sheet, mark [X] in SHIFT column; on Type 2 sheet, mark [X] through scoring grid.)	
(This is the third shift in one day, so criterion has been met on this step. Therefore, it was not necessary to complete the remaining trials for that day.)	

*Example trials for this Table correspond to those trials with asterisks (*) on Example Scoring Forms, Figures 46 and 47.

[illegible]

Type 1

Figure 47
Scoring Form for Step 6

Student David Date 3/29/77 Session # 1

Trainer Judy

Circle Speech Level: A B [✓ C]

Known Items: 1) ~~[illegible]~~ wagon 2) ~~pop~~ chalk 3) cat

Novel Items: 4) ~~wagon~~ whistle 5) lotion 6) ~~hook~~ brush

Show Expected Response	Score	No* Shift	Shift	Show Expected Response	Score	No* Shift	Shift
1.(3) (label)	+ + + +			16.(5)"What's that" or (label)			
2.(4)"What's that" or (label)*	+ + + S	X		17.(6)"What's that" or (label)			
3.(3) (label)	+ + + +			18.(2) (label)			
4.(2) (label)	+ + + +			19.(1) (label)			
5.(1) (label)	+ + + +			20.(2) (label)			
6.(1) (label)	+ + + +			21.(4)"What's that" or (label)			
7.(5)"What's that" or (label)	+ + + S	X		22.(2) (label)			
8.(1) (label)	+ + + S			23.(4)"What's that" or (label)			
9.(6)"What's that" or (label)	+ + + S	X		24.(6)"What's that" or (label)			
10.(3) (label)	+ + + +			25.(5)"What's that" or (label)			
11.(6)"What's that" or (label)	+ S +		X	26.(1) (label)			
12.(6)"What's that" or (label)	+ + + S	X		27.(5)"What's that" or (label)			
13.(2) (label)	+ S + S			28.(1) (label)			
14.(4)"What's that" or (label)*	+ S + S		X	29.(4)"What's that" or (label)			
15.(5)"What's that" or (label)*	+ + + S		X	30.(3) (label)			

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total response (+); or not acceptable as a total response (0).

*When presented with novel items the student may ask, "What's that?" in which the no-shift column would be marked (X); or the student may label the item, in which case you would indicate the desired shift was made by marking an (X) in that column.

Summary for Session

Novel Items (list)	No-Shift	Shift
1. wagon		X
2. glue	X	
3. chalk		X
4. whistle		
5. brush	X	
6.		

Signing

Type 2

Figure 48
Scoring Form for Step 6

Student David Trainer Judy

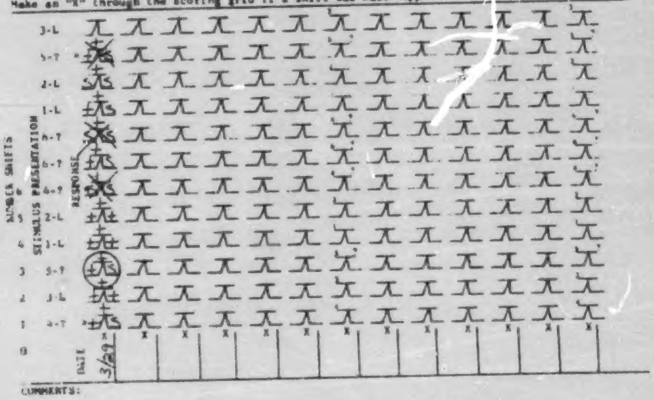
Circle Speech Level: A B [✓ C]

Known Items: 1) ~~[illegible]~~ wagon 2) ~~pop~~ chalk 3) ~~Goat~~ glue

Novel Items: 4) ~~wagon~~ whistle 5) ~~lotion~~ glue 6) ~~hook~~ brush

a: (holds item) ?: "What's that?" L: "label"

Make an "X" through the scoring grid if a shift was made (X).



COMMENTS:

Figure 48
Summary Form for Step 6
Speech Level: A

Student Joe Trainer Judy
Date Training Started 3/29 Date Training Ended: 4/6 Total Sessions to Criterion: 12

Sessions*

Novel Items (list)	1	2	3	4	5	6	7	8	9	10	11												Speech Approximations
1. clock	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	S												
2. card	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	S												
3. eraser	NS	NS	NS	NS	NS	NS	NS	NS	S														
4. key										NS	S												
5. kleenex																							
6. whistle																							
7.																							
8.																							
9.																							

Date 3/29 3/30 3/31 4/1 4/4 4/6

* Record no-shift (NS) if the student does not make the shift from asking "What's that?" to labeling of the item in the session, record (S) if the shift is made. Criterion level for advancing to the next step is a shift within two sessions for each of three novel items.

Signing

Figure 49
Summary Form for Step 6
Speech Level: B

Student Susie
Trainer Judy
Date Training Started 3/29
Date Training Ended: 3/31
Total Sessions to Criterion: 4

Sessions*

Novel Items (list)	Session #																						Speech Approximations
1. shampoo	NS	NS	NS																				poo
2. mirror	NS	NS	NS	S																			muh
3. lotion	NS	S																					tuh
4. perfume			S																				puh
5. powder				S																			uh
6. necklace																							
7.																							
8.																							
9.																							
Date	3/29	3/30	3/31																				

* Record no-shift (NS) if the student does not make the shift from asking "What's that?" to labeling of the item in the session, record (S) if the shift is made. Criterion level for advancing to the next step is a shift within two sessions for each of three novel items.

STEP 7

(Using "Yes" and "No" To Identify Item Labels)

GENERAL INSTRUCTIONS

Training Goal

The goal of this Step is twofold: 1) to train the use of "yes" and "no" when identifying labels for items; and 2) to establish "yes" and "no" as a verbal substitute for pointing. This is further training in reception, inasmuch as the student is required to recognize the differences between various item labels. In this case, however, a signed response, "yes/no," is used by the student to indicate that he or she can recognize that the visual presentation of the item matches the verbal item label provided by you (requiring a "yes" response); or, alternatively, that the student can recognize that the visual presentation of the item does not match the verbal item label provided by you (requiring a "no" response).

NOTE: The purpose of introducing the "yes/no" concept at this time is to reach a receptive response (other than pointing) that can be used in later Steps to assess the student's understanding of certain concepts that cannot be easily presented in a manner that allows the student to give a pointing response. For many students Step 7 will be very difficult, and some students may not learn this concept at this point in the training sequence. If learning does not take place after a reasonable amount of time, discontinue training and advance the student to Step 8. This is advised even though some Steps in Parts II, III, and IV of the program will also require yes or no responses (although in contexts different from Step 7). We have found that some students who originally did not reach criterion on Step 7, did so when returned to the Step at a later time (i.e., after other Steps have been mastered). We do caution you, however, not to discontinue training on this Step unless the student has been given a good opportunity to learn the concept following the training procedures presented below. As discussed in the introduction to this book, a student should be given at least 25 training sessions on a particular Step (or phase within a Step) before you decide to move to the next Step. If however, the student is showing steady improvement toward criterion performance, you should continue beyond 25 sessions. However, no Step (or phase within a Step) should be pursued for more than 40 sessions.

Training Items

Sixteen items the student can easily and accurately label both expressively and receptively. It is extremely important that the objects used in Step 7 be selected carefully. It is recommended that Step 1 and 2 Skill Tests be readministered at this time. Select items for use in Step 7 only when the student correctly responded to both trials for that object in each Skill Test. If no maintenance training has occurred since Step 1 or 2, some retraining may be necessary before beginning Step 7.

Procedures

Use the Total Communication Training and Correction Procedures. As with earlier Steps, train Step 7 first with the trainer using speech and sign together to present the stimulus. Then retrain it using the conditions alone.

SPECIFIC INSTRUCTIONS

STEP 7a: TRAINER USES SPEECH AND SIGN

Skill Test

This Step has a Skill Test to be given before beginning training and after training of certain phases within the Step.

1. In giving the Skill Test, all 16 items are openly displayed to the student. Hold up each item, one at a time, and ask in speech and sign IS THIS A (ITEM)? Follow the order of presentations in the Skill Test Scoring Form for Step 7 found in Figure 50.

2. On one-half the trials, the item shown to the student will be the same (or match) the verbal label of the item provided by you (e.g., you hold up a cup and ask, IS THIS A CUP?). The correct response for these trials would be "yes."

3. On the remaining half of the trials, the item presented does not match the label of the item provided (e.g., you hold up a cup and ask, IS THIS A PENCIL?). The correct response for these trials is "no."

4. The Training and Correction Procedure is used when administering the Skill Test for Step 7. The example trials in Table 24 are provided to show how this is done. The examples given are keyed to Trials 22, 23, 24, and 25 on the sample Skill Test Scoring Form for Step 7 (Figure 50).

5. Criterion for the Skill Test is 80 percent or more correct responses in a session or 12 correct responses in a row in a session.

6. Administer the Skill Test when indicated in the Training Instructions section. The student is advanced to Step 7b when criterion performance on the Skill Test is reached or until it is apparent the student is not learning the concept.

Training Instructions

The training of the Yes-or-No concept is fairly lengthy and involves 14 Phases for those students who do require the entire training sequence.

Table 24
Example Trials* for Step 7a Skill Test
Level B Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Trial 22	
(Trainer shows student the ball.)	
is this ball / IS THIS A BALL?	(no response) / BUH
wrong yes yes / WRONG. YES IT'S A BALL. YES..	(waves hand up and down) / EH
good try / GOOD TRY. (Scores [0⋀S] on Scoring Form.)	
is this ball / IS THIS A BALL?	(nods fist up and down / EH
very good / VERY GOOD. (Lets student play with ball for a few seconds.)	
Trial 23	
(Shows bubbles.)	
is this bubbles / IS THIS BUBBLES?	(nods fist) / EH
great yes / GREAT YES—CAN YOU PUT YOUR FINGERS OUT? (Shapes student's hands.)	yes / EH
much better. (Scores [S⋀S]).	
Trial 24	
(Shows candy.)	
is this candy / IS THIS CANDY?	yes / EH
terrific yes / TERRIFIC! YES, IT'S CANDY. (Scores [+⋀S] . Gives student small piece of candy.)	
Trial 25	
(Shows comb.)	
is this shoe / IS THIS A SHOE?	yes / EH
wrong no / WRONG. NO, THAT'S NOT A SHOE.	
(Scores [-⋀S]) no / NO	no / OH
better / BETTER	
is this shoe / IS THIS A SHOE?	yes / EH
(Does nothing. Goes on to next trial.)	

---

*Example trials for this Table correspond to those trials with asterisks (*) on Example Scoring Forms, Figure 50.

Board
Signing 113

Figure 50
SKILL TEST SCORING FORM FOR STEP 7

Student Susie Date 4/8/77 Session # 1

Trainer Judy

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

The trainer is free to select items which meet the needs of each student, based on the student's ability to label the objects. The items used in trials 1-16 are repeated in randomized order in trials 17-32. If the blank in the SHOW column is followed by (Y), place that same item in the blank in the ASK column to elicit a "yes" answer. If there is an (N) after the blank in the SHOW column, use another of the 16 items in the ASK column to elicit a "no" answer. Each item should have a yes and a no question. Remember that criterion is based on all 32 trials.

SHOW	ASK	SCORE	SHOW	ASK	SCORE
1. shoe (Y)	IS THIS A shoe?	-ΛS	17. cup (Y)	IS THIS A cup?	-ΛS
2. bubbles (N)	IS THIS A ball?	-ΛS	18. shoe (N)	IS THIS A radio?	0ΛS
3. cookie (N)	IS THIS A book?	-ΛS	19. spoon (N)	IS THIS A water?	-ΛS
4. pop (Y)	IS THIS A pop?	-ΛS	20. cookie (Y)	IS THIS A cookie?	-ΛS
5. ball (N)	IS THIS A soap?	-Λ0	21. chip (N)	IS THIS A pop?	-ΛS
6. radio (Y)	IS THIS A radio?	-ΛS	22. ball (Y)	IS THIS A ball?	*0ΛS
7. spoon (Y)	IS THIS A spoon?	0Λ0	23. bubbles (Y)	IS THIS A bubbles	*SΛS
8. towel (Y)	IS THIS A towel?	-ΛS	24. candy (Y)	IS THIS A candy?	*±ΛS
9. candy (N)	IS THIS A bubbles	-ΛS	25. comb (N)	IS THIS A shoe?	*-ΛS
10. chip (Y)	IS THIS A chip?	-ΛS	26. water (N)	IS THIS A towel?	-ΛS
11. book (N)	IS THIS A car?	-ΛS	27. radio (N)	IS THIS A chip?	SΛS
12. cup (N)	IS THIS A cookie?	-ΛS	28. car (Y)	IS THIS A car?	-ΛS
13. water (Y)	IS THIS A water?	-Λ0	29. pop (N)	IS THIS A comb?	-ΛS
14. soap (N)	IS THIS A cup?	-Λ0	30. book (Y)	IS THIS A book?	-ΛS
15. car (N)	IS THIS A candy?	-Λ0	31. towel (N)	IS THIS A spoon?	-ΛS
16. comb (Y)	IS THIS A comb?	-ΛS	32. soap (Y)	IS THIS A soap?	-ΛS

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	✗	-	S	0
Score	1	-	20	2	3
Percent	3	-	81	6	9

Speech

+	-	S	0
-	-	27	5
0	0	84	16

Acceptability

+	0

Of course, the student can exit the Step by reaching criterion on the Skill Test which is given between various phases. Table 25 summarizes the training phases included in this Step.

Phase I

1. Select just one item for Phase I training (e.g., ball). This item will be used for all trials in this phase.

2. Hold up the item and ask in speech and sign, WHAT IS THIS? The student must respond with the correct label (e.g., "ball"). Use the Training and Correction Procedure for incorrect or no responses.

3. While continuing to hold up the item, ask IS THIS A (ITEM)? e.g., IS THIS A BALL? In Phase I the label in the question will always match the item presented, requiring a "yes" response from the student.

   NOTE: Some students may say "yes-ball" or "ball-yes." This is considered a correct response, but you should attempt to elicit from the student just a "yes" response if at all possible since the addition of the item label may cause some confusion in later phases.

4. In the unlikely event that the student does not label the item when initially asked WHAT IS THIS?, proceed to the next trial without asking the second question, IS THIS A (ITEM)? The second question can still be asked, however, if a correct labeling response is given following the use of the Training and Correction Procedure.

5. Use either the Type 1 or Type 2 Scoring Form for Step 7 (Phases I and II) for recording responses. As indicated, these scoring forms (Figure 51 and 52) are used for both Phase I and Phase II. Two responses are required from the student on each trial. The first is a labeling response for the item presented; the second is for the expected "yes" response in Phase I (or the expected "no" response in Phase II). The total is a combination of the two responses and includes only those trials in which both responses are correct. The sample Scoring Forms for Step 7 (Phases I and II) illustrate how scores are computed. Percents are recorded separately for labeling (ball) and for the "yes" responses required in Phase I. The total is based only on those trials in which both responses are correct, as indicated by the circles around the trial numbers or dots between the grids. Only total percent correct responses determine critermon performance and only total percent correct responses are recorded on the Summary Form for Step 7 (Figure 79).

6. Continue training in Phase I until criterion performance (80 percent or better [total] correct responses or 12 consecutive [total] correct responses are given in one training session). Advance the student to Phase II of Step 7 when criterion performance is reached.

Phase II

1. Present the student with the same item (e.g., ball) used in Phase I for each trial and ask, using speech and sign, WHAT IS THIS? The student must

Table 25

SUMMARY OF 14 TRAINING PHASES IN STEP 7

Phase	Item(s) Displayed	You Ask.	Correct Response	You Ask.	Correct Response
I	ball	WHAT IS THIS?	"ball"	IS THIS A BALL?	"yes"
II	ball	WHAT IS THIS?	"ball"	IS THIS A ______?	"no"
III	ball	WHAT IS THIS?	"ball"	IS THIS A BALL?	"yes"
	ball	WHAT IS THIS?	"ball"	IS THIS A ______?	"no"
IV	ball			IS THIS A BALL?	"yes"
	ball			IS THIS A ______?	"no"
V	car	WHAT IS THIS?	"car"	IS THIS A CAR?	"yes"
	car	WHAT IS THIS?	"car"	IS THIS A ______?	"no"
VI	car			IS THIS A CAR?	"yes"
	car			IS THIS A ______?	"no"
VII	ball	WHAT IS THIS?	"ball"	IS THIS A BALL?	"yes"
	ball	WHAT IS THIS?	"ball"	IS THIS A ______?	"no"
	car	WHAT IS THIS?	"car"	IS THIS A CAR?	"yes"
	car	WHAT IS THIS?	"car"	IS THIS A ______?	"no"
Administer Skill Test					
VIII	ball			IS THIS A BALL?	"yes"
	ball			IS THIS A ______?	"no"
	car			IS THIS A CAR?	"yes"
	car			IS THIS A ______?	"no"
Administer Skill Test					
IX	hat	WHAT IS THIS?	"hat"	IS THIS A HAT?	"yes"
	hat	WHAT IS THIS?	"hat"	IS THIS A ______?	"no"
X	ball			IS THIS A BALL?	"yes"
	ball			IS THIS A ______?	"no"
	car			IS THIS A CAR?	"yes"
	car			IS THIS A ______?	"no"
	hat			IS THIS A HAT?	"yes"
	hat			IS THIS A ______?	"no"
Administer Skill Test					
XI	cup	WHAT IS THIS?	"cup"	IS THIS A CUP?	"yes"
	cup	WHAT IS THIS?	"cup"	IS THIS A ______?	"no"
XII	ball			IS THIS A BALL?	"yes"
	ball			IS THIS A ______?	"no"
	car			IS THIS A CAR?	"yes"
	car			IS THIS A ______?	"no"
	hat			IS THIS A HAT?	"yes"
	hat			IS THIS A ______?	"no"
	cup			IS THIS A CUP?	"yes"
	cup			IS THIS A ______?	"no"
Administer Skill Test					
XIII	apple	WHAT IS THIS?	"apple"	IS THIS AN APPLE?	"yes"
	apple	WHAT IS THIS?	"apple"	IS THIS A ______?	"no"
XIV	car			IS THIS A CAR?	"yes"
	car			IS THIS A ______?	"no"
	hat			IS THIS A HAT?	"yes"
	hat			IS THIS A ______?	"no"
	cup			IS THIS A CUP?	"yes"
	cup			IS THIS A ______?	"no"
	apple			IS THIS AN APPLE?	"yes"
	apple			IS THIS A ______?	"no"
Administer Skill Test					

Continue Phases XIII and XIV, introducing the remaining items (Phase XIII); administer Skill Test after each set of four items are trained in combination (Phase XIV) until criterion performance is reached, or until all 16 items have been trained.

supply the correct label (e.g., "ball"). Use the Training and Correction Procedure when an incorrect or no response is made.

2. While continuing to hold up the item, ask IS THIS A__________? The blank indicates that you substitute the label of one of the other training items (e.g., you hold up a ball and ask, IS THIS A PENCIL?). The word you substitute should vary from trial to trial. The correct response from the student is always "no" because the label in the question will not match the item (ball) shown. It is most important that the labels in the question (as indicated by the blank space) be changed from trial to trial. For example, in trial 1 you would hold up the ball and ask, IS THIS A PENCIL? In trial 2 you would hold up the ball and ask, IS THIS A HAT?, etc. As usual, the Training and Correction Procedure is used for incorrect or no responses.

3. Use the Scoring Form for Step 7 (Phases I and II) for recording responses. A sample scoring form filled out for Phase II is presented in Figures 53 and 54. Scores are computed separately for labeling (ball) and for the "no" response required in Phase II on Form 1. Again, the total is based only on those trials in which both responses are intelligible (as indicated by the circles around the trial numbers in Type 1 forms and dots between the grids on Type 2 forms).

4. Continue training until criterion performance is achieved. Advance the student to Phase III of Step 7 when the student reaches criterion.

Phase III

1. This phase is a combination of both the "yes" and "no" responses trained in Phase I and Phase II, respectively. The same item (e.g., ball) is used for all trials in a session.

2. Present the item and ask, WHAT IS THIS? For correct responses the student must provide the correct label (e.g., "ball").

3. You then ask, IS THIS A (ITEM)? On one-half the trials the item (ball) and the label in question will match. For example, you hold up the ball and ask, IS THIS A BALL? Correct response for these trials is "yes."

4. On the remaining one-half trials the item presented (ball) will not match the label in question. For example, you hold up the ball and ask, IS THIS A CAR? Correct response for these trials is "no."

5. Use the Scoring Form for Step 7 (Phases III, V, IX, XI, and XIII) shown in Figures 55 and 56. All of these phases (III, V, IX, XI, and XIII) use the same procedure although the training items will change. Scores are again recorded separately for labeling responses (e.g., ball) just like the Scoring Form for Step 7 (Phases I and II). In this scoring form, however, the "yes/no" responses are combined since each is presented for 16 trials. Again, the total is based on only those trials in which

both responses (labeling and "yes" or "no") are correct for the same trial, as indicated by the circles and dots. And, as before, criterion performance is based on total trials acceptable.

6. Continue training until criterion performance is reached. Advance the student to Phase IV of Step 7 when he or she achieves criterion performance.

Phase IV

1. This phase again uses the same item (e.g., ball) as Phases I, II, and III. Phase IV is identical to Phase II except the initial question, WHAT IS THIS?, is omitted.

2. For each of the 32 trials hold up the item (ball) and ask, IS THIS A (ITEM)? On one-half the trials the item label in the question will match the item shown (e.g., you hold up the ball and ask, IS THIS A BALL?). The correct response is "yes."

3. On one-half the trials the item label in the question will not match the item shown (e.g., you hold up the ball and ask, IS THIS A HAT?). The correct response for these trials is "no."

4. Use the Scoring Form for Step 7 (Phases IV and VI) shown in Figures 57 and 58. Both Phase IV and VI use identical procedures except for the training item presented. Enter only the percent acceptable responses for the session in the Summary Form for Step 7 (Figure 79).

5. Continue training until criterion performance is reached, and then advance the student to Phase V of Step 7.

Phase V

1. Phase V is identical to Phase III except a new training item (e.g., car) is introduced. The new item is presented for each of the trials in the session.

2. Hold up the item (e.g., car) and ask, WHAT IS THIS? For a correct response the student must provide the label (e.g., "car").

3. Next, you ask IS THIS A (ITEM)? On one-half the trials the item label in the question will match the item shown (e.g., you hold up the car and ask, IS THIS A CAR?). For these trials the correct response is "yes."

4. On the remaining one-half trials the item label in the question will not match the item shown (e.g., you hold up the car and ask, IS THIS A HAT?).

5. Use the Scoring Form for Step 7 (Phases III, V, IX, XI, and XIII, Figures 59 and 60. Remember, only the total percent acceptable is recorded in the Summary Form for Step 7 (Figure 54).

6. Continue training in Phase V until criterion performance is reached, then advance the student to Phase VI.

   NOTE: If the student has difficulty with Phase V, you can go back to Phase I, using the new item (car), and progress through Phases II, III, and IV. If this is required the percent correct responses should be recorded as such across from the appropriate phase number in the Summary Form for Step 7 (Figure 79).

Phase VI

1. This phase is identical to Phase IV, except the new training item (e.g., car) is used.
2. For each of the trials, hold up the item (car) and ask, IS THIS A (ITEM)? On one-half the trials the label in the question will match the item shown (e.g., you hold up the car and ask, IS THIS A CAR?). The correct response for these trials is "yes."
3. On one-half the trials the item label in the question will not match the item shown (e.g., you hold up the car and ask, IS THIS A SOCK?). The correct response for these trials is "no."
4. Use the Scoring Form for Step 7 (Phases IV and VI). A sample Scoring Form for Phase VI is shown in Figures 61 and 62. Remember to enter the percent acceptable responses for the session in the Summary Form for Step 7 (Figure 79).
5. Continue training until criterion performance is achieved, then advance the student to Phase VII of Step 7.

Phase VII

1. This phase is a combination of Phases III and V, using the two items which have been trained so far.
2. Hold up one of the two items randomly, and on separate trials, as indicated on the Scoring Form for Step 7 (Phase VII) shown in Figures 63 and 64. Ask WHAT IS THIS? For correct responses the student must provide the correct item label (e.g., say "ball" when the ball is presented, and say "car" when the car is presented). Use the Training and Correction procedure for incorrect or no responses.
3. Following an acceptable labeling response, you then ask the second question, IS THIS A (ITEM)? On one-half the trials the item label in the question will match the item shown, requiring a "yes" response from the student. For example, you will hold up the ball and ask, IS THIS A BALL? or you will hold up the car and ask IS THIS A CAR?
4. On one-half the trials the item label in the question will not match the item displayed, requiring a "no" response. For example, you will hold up the ball and ask, IS THIS A CHAIR? or you will hold up the car and ask, IS THIS A COOKIE?

5. On the Scoring Form for Step 7 (Phase VII) shown in Figures 63 and 64, scores are recorded separately for item labeling responses (e.g., "ball" and "car") and for "yes/no" responses. Again, the total is based on only those trials in which both responses (item labeling and "yes" or "no") are for the same trial as shown by the circles around the trial numbers. Criterion performance is based on total trials intelligible.

6. Continue training until criterion performance is reached. Administer the Skill Test for Step 7 when the student has achieved criterion performance on Phase VII. If criterion is met on the Skill Test, advance the student to Step 76. If the student fails to reach criterion on the Skill Test, advance the student to Phase VIII of Step 7. Remember to enter the percent acceptable from the Skill Test on the Summary Form for Step 7 (Figure 79).

   NOTE: Phase VII of Step 7 is probably the most difficult phase in this Step for most students. This is likely due to the fact that the student must make "yes" or "no" responses based upon the discrimination between two items (e.g., "ball" and "car"). The chances of a student successfully completing Step 7 are excellent if he or she can achieve criterion performance in this phase.

Phase VIII

1. This phase is identical to Phase VII, except the initial question, WHAT IS THIS?, is omitted.

2. Present the two items (e.g., ball and car) randomly, and on separate trials as shown in the Scoring Form for Step 7 (Phase VIII) in Figures 65 and 66. For each trial, ask, IS THIS A (ITEM)?

3. On one-half the trials the item label in the question will match the item displayed, requiring a "yes" from the student. For example, you will hold up the ball and ask, IS THIS A BALL? or you will hold up the car and ask, IS THIS A CAR?

4. On one-half the trials the item labeled in the question will not match the item displayed, requiring a "no" response (e.g., you will hold up the ball and ask, IS THIS A SPOON? or you will hold up the car and ask, IS THIS A COMB?).

5. Continue training until criterion performance is achieved. Give the Skill Test for Step 7 when the student reached criterion performance. If the student achieves criterion on the Skill Test, begin training Step 7b. If not, train the student on Phase IX of Step 7.

Phase IX

1. This phase is identical to Phases III and V except a new training item (e.g., hat) is used.

2. Display the item for each trial and ask, WHAT IS THIS? The student is required to provide the appropriate label (e.g., "hat") for correct responses.

3. Following an acceptable labeling response for each trial, next ask IS THIS A (ITEM)? On one-half the trials the item presented will match the item label in the question, requiring a "yes" response from the student. On one-half the trials the item displayed will not match the item label in the question, requiring a "no" response from the student.

4. Use the Scoring Form for Step 7 (Phases III, V, IX, XI, XIII) presented in Figures 67 and 68. Record scores for labeling (e.g., "hat"), "yes/no," and total (i.e., those trials in which the student correctly labels the item and gives the correct "yes/no" response in the same trial).

5. Continue training to criterion. Advance the student to Phase X when criterion has been met.

Phase X

1. This phase combines all three of the items trained so far (e.g., ball, car, hat).

2. Present randomly, and separately, each of the three items for an equal number of trials as illustrated in the Scoring Form for Step 7 (Phase X) in Figures 69 and 70.

3. For each trial, hold up the item and ask, IS THIS A (ITEM)?; e.g., IS THIS A BALL?, IS THIS A CAR?, or IS THIS A HAT?

4. On one-half the trials the item presented will match the item label in the question. For example, you hold up the car and ask, IS THIS A CAR? Correct responses for these trials is "yes."

5. On the remaining one-half trials, the item displayed will not match the item label in the question; e.g., you hold up the hat and ask, IS THIS A TABLE? The correct response for these trials is "no"). (See Figures 69 and 70)

6. Enter the percent correct "yes/no" responses in the Summary Form for Step 7 as usual. Note that the 36-trial conversion table in Appendix A of the original manual is needed for Type 1 forms.

7. Continue training until criterion performance is reached, then administer the Skill Best. Begin training Step 7b if criterion is reached. If not, go on to Phase XI of Step 7.

Phase XI

1. This phase is identical to Phases III, V, and IX except a new item (e.g., cup) is trained.

2. Display the item for each trial and ask, WHAT IS THIS? The student is required to provide the appropriate label (e.g., "cup") for correct responses.

3. Following a correct labeling response, next ask IS THIS A (ITEM)? On one-half the trials the item shown will match the item label in the question, requiring a "yes" response from the student. On the remaining one-half trials the item presented will not match the item label in the question, requiring a "no" response from the student.

4. Use the Scoring Form for Step 7 (Phases III, V, IX, XI, and XIII) presented in Figures 71 and 72. Record scores for labeling (e.g., "cup"), "yes or no," and total (i.e., those trials in which the student correctly labels the item and then gives the correct "yes or no" response in the same trial).

5. Continue training to criterion. Advance the student to Phase XII when criterion is met.

Phase XII

1. This phase combines all four of the items trained so far (e.g., ball, car, hat, and cup).

2. Present randomly, and separately, each of the four items for an equal number of trials, as illustrated in the Scoring Form for Step 7 (Phases XII and XIV) in Figures 73 and 74.

3. For each trial, hold up the item and ask, IS THIS A (ITEM)?: e.g., IS THIS A BALL?, CAR?, HAT?, or CUP?

4. On one-half the trials the item presented will match the item label in the question, requiring a "yes" response from the student.

5. On the remaining one-half trials the item presented will not match the item label in the question, requiring a "no" response from the student.

6. Compute percent of "yes and no" responses in the Scoring Form for Step 7 (Phases XII and XIV) and enter percent correct responses on the Summary Sheet for Step 7 (Figure 79).

Phase XIII

1. This phase is identical to Phases III, V, IX, and XI except a new item (e.g., apple) is trained.

2. Display the item for each trial and ask, WHAT IS THIS? The student is required to provide the appropriate label (e.g., "apple") for correct responses.

3. Following a correct labeling response, next ask IS THIS A (ITEM)? On one-half the trials the item presented will match the item label in the

question, requiring a "yes" response. On the remaining one-half trials the item displayed will not match the item in the question, requiring a "no" response from the student.

4. Use the Scoring Form for Step 7 (Phases III, V, IX, XI, and XIII) presented in Figures 75 and 76. Record scores for labeling (e.g., "apple," "yes/no") and total (i.e., those trials in which the student correctly labels the item and gives the correct "yes or no" response in the same trial).

5. Continue training to criterion. Advance the student to Phase XIV when criterion is met.

Phase XIV

1. Phase XIV is a repeat of Phase XII, using the four most recently trained items. This would include car, hat, cup, and apple. The first item trained (e.g., ball) is now dropped from the sequence.

2. Present randomly, and separately, each of the four items for an equal number of trials, as illustrated in the Scoring Form for Step 7 (Phases XII and XIV) in Figures 77 and 78.

3. For each trial, hold up the item and ask, IS THIS A (ITEM)?; e.g., IS THIS A CAR?, HAT?, CUP?, or APPLE?

4. On one-half the trials the item presented will match the item label in the question, requiring a "yes" response from the student.

5. On the remaining one-half trials the item presented will not match the item label in the question, requiring a "no" response from the student.

6. Record the percent of "yes and no" responses in the Scoring Form for Step 7 (Phases XII and XIV) in Figures 77 and 78 and enter the percent correct responses on the Summary Form for Step 7 (Figure 79).

7. Continue training until criterion performance is reached, then administer the Skill Test for Step 7.

8. If the student achieves criterion performance on the Skill Test begin training Step 8. If not, return to Phase XIII and train a new item.

9. The remainder of the training sequence is a repeat of Phases XIII and XIV in which a new item is trained by itself (Phase XIII), then in combination with the three other most recently trained items (Phase XIV). Phase XIV will never include more than four items. Give the Skill Test after the combined training of each set of four items (Phase XIV). This training continues until the entire list of 16 items has been trained or until the Skill Test is passed.

10. If the student completes training on all 16 items and still does not achieve criterion on the Skill Test, you should use the Skill Test as

a training program until the student does achieve criterion performance. When using the Skill Test as a training program, make sure that items are presented randomly in each session and that there is an equal number of "yes" and "no" responses required.

11. Initiate the Programming for Generalization procedures when criterion performance is reached.

STEPS 7b and 7c: TRAINER USES SPEECH AND SIGN ALONE

Steps 7b and 7c are taught exactly like Step 7a except the trainer uses only speech to ask the stimulus question in Step 7b and only sign in Step 7c. Begin 7b (and 7c) by administering the Skill Test. If the student does not reach criterion on it begin training on Phase VIII. There is no need to begin training on an earlier phase unless the student experiences difficulty with Phase VII. Follow the training order as for Step 7a after that. Again, some students have difficulty with this part of the program. Discontinue training on this Step if progress stops.

SUMMARY FORM FOR STEP 7

The sample Summary Form for Step 7 in Figure 79 shows progress through the various phases in the Step, and also depicts percent correct responses on the Skill Test given at the appropriate times.

PROGRAMMING FOR GENERALIZATION

Upon completion of Step 7 parents, parent-surrogates, teachers, etc. should frequently present to the student items he/she can label and ask the question, "Is this a (same item label)? or "Is this a (different-item label)?" As the student appears to be maintaining a consistent level of correct responding across different persons and in different settings, different cues should gradually be included. Examples of additional questions which could be asked centering around toileting might be: "Do you need to potty?", "Are you in the bathroom?", "Did you potty?" Various questions which might be asked around mealtime could be: "Are you sitting in a chair?", "Are you drinking (milk/water/juice)?", "Are you eating (sandwich/cake/salad)?"

Questions requiring a yes or no response should be presented in a variety of settings and be appropriate according to the setting.

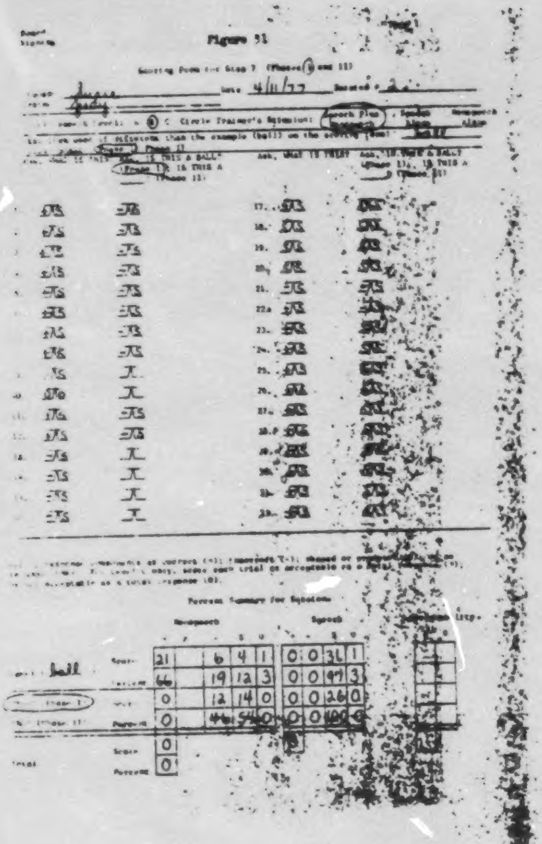


Figure 51

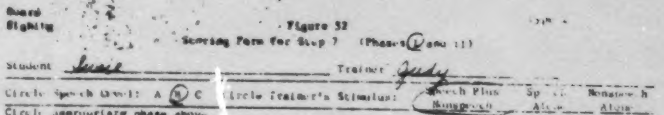
Scoring Form for Step 7 (Phase I and II)

Date 4/11/77

ball

Percent Summary for Speech

ball	Score	21		6	4	1	0	0	36	1
	Percent	66		19	12	3	0	0	97	3
	Score	0		12	14	0	0	0	26	0
	Percent	0		46	54	0	0	0	100	0
Total	Score	0								
	Percent	0								



Board Sighting

Figure 52

Scoring Form for Step 7 (Phase I and II)

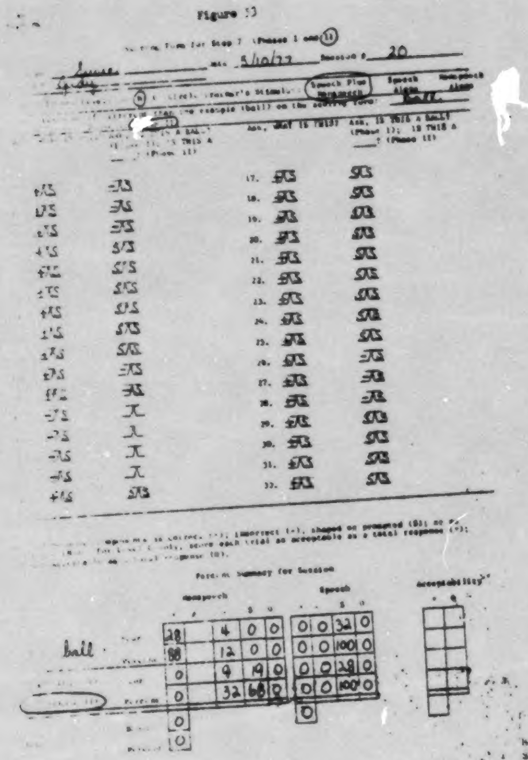
Student Susie Trainer Judy

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Circle appropriate phase above.

List item used: ________ a) WHAT IS THIS? "Label" b) IS THIS A (Label)?

2/11 2/12



Type 1

Figure 53

Scoring Form for Step 7 (Phase I and II)

Date 5/10/77 Session # 20

Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

ball

Ans. WHAT IS THIS? Ans. IS THIS A BALL? (Phase I); IS THIS A ___? (Phase II)

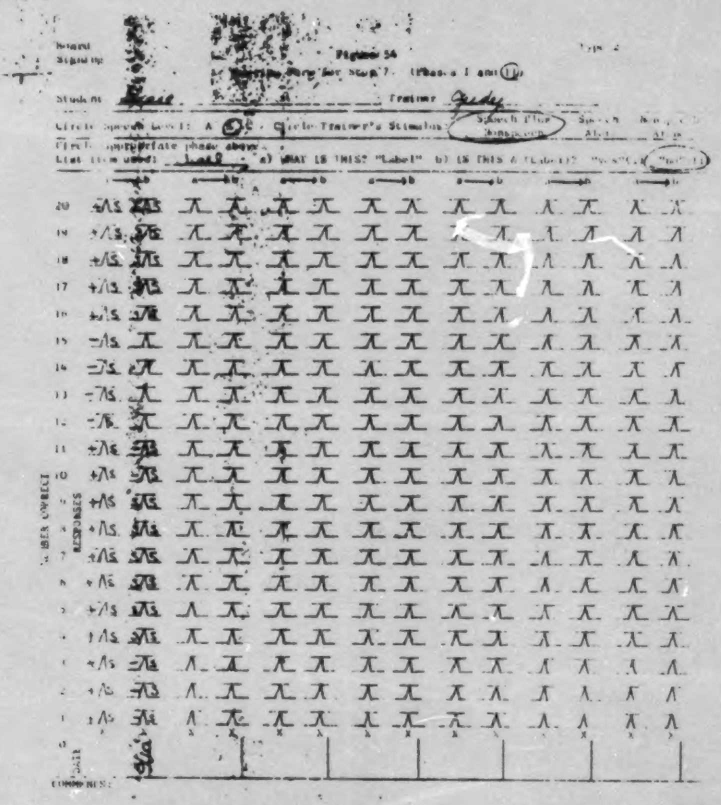
Percent Summary for Session

Nonspeech

Speech

Acceptability

ball



Type 2

Figure 54

Scoring Form for Step 7 (Phase I and II)

Student

Trainer Judy

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Circle appropriate phase above.

List item used: ball a) WHAT IS THIS? "Label" b) IS THIS A (Label)? "Yes" (I) "No" (II)

NUMBER CORRECT RESPONSES

COMMENTS:

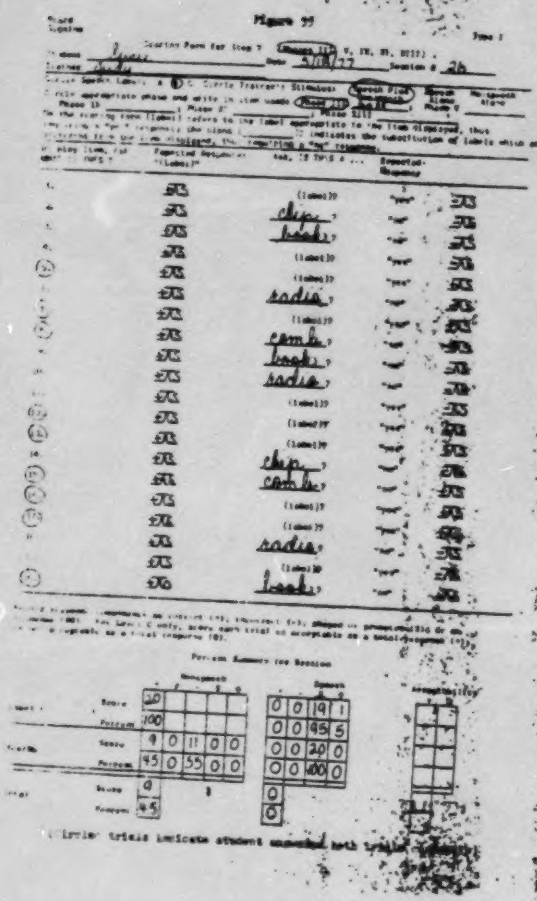


Figure 55

Scoring Form for Step 7

Type 1

Session # 26

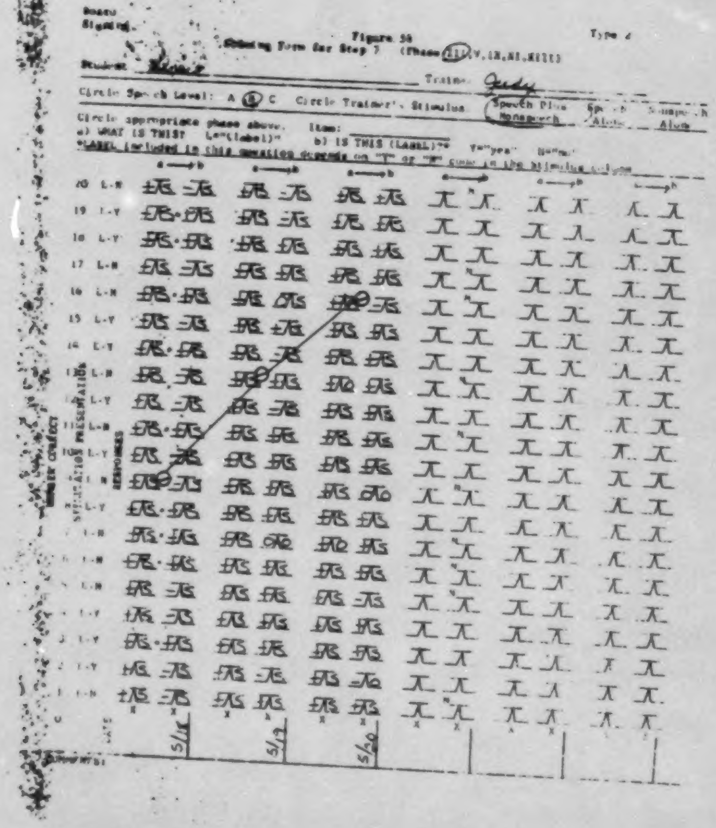


Figure 56

Scoring Form for Step 7 (Phase III, V, IX, XI, XIII)

Type 2

Trainer Judy

Circle Speech Level: A [✓ B] C

Circle Trainer's Stimulus [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Circle appropriate phase above. Item:

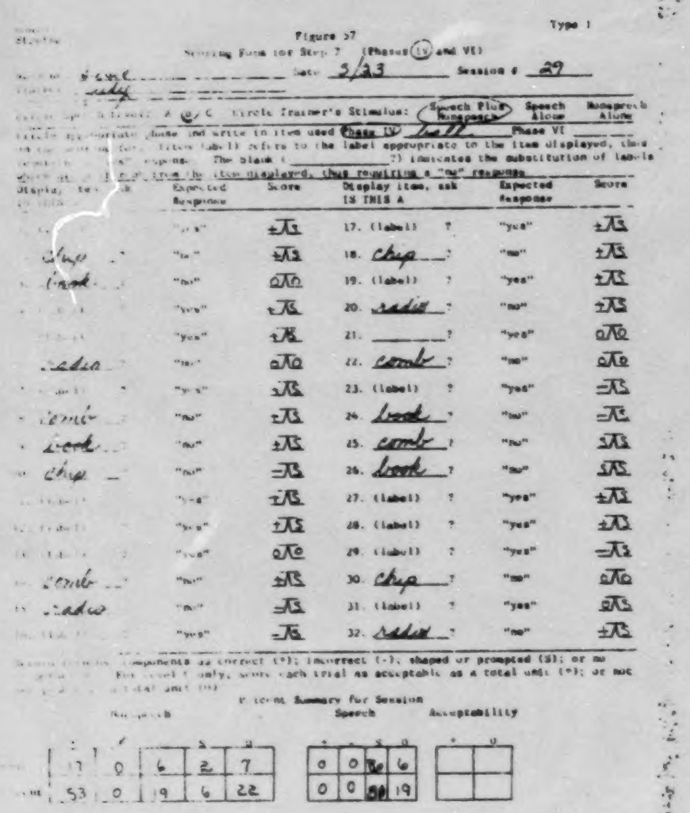
a) WHAT IS THIS? L="(label)"

b) IS THIS (LABEL)?* Y="yes" N="no"

5/18

5/19

5/20



Type I

Figure 57

Scoring Form for Step 7 (Phases [✓ IV] and VI)

Date 5/23 Session # 29

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Circle appropriate phase and write in item used [✓ Phase IV] ball Phase VI ______

(label) refers to the label appropriate to the item displayed, thus requiring a "yes" response. The blank (______?) indicates the substitution of labels which are different from the item displayed, thus requiring a "no" response.

Display item, ask IS THIS A	Expected Response	Score	Display item, ask IS THIS A	Expected Response	Score
[illegible]	"yes"	±ΛS	17. (label) ?	"yes"	±ΛS
chip ?	"no"	±ΛS	18. chip ?	"no"	±ΛS
book ?	"no"	0Λ0	19. (label) ?	"yes"	±ΛS
[illegible]	"yes"	±ΛS	20. radio ?	"no"	±ΛS
[illegible]	"yes"	±ΛS	21. ______?	"yes"	0Λ0
radio ?	"no"	0Λ0	22. comb ?	"no"	0Λ0
(label) ?	"yes"	±ΛS	23. (label) ?	"yes"	−ΛS
comb ?	"no"	±ΛS	24. book ?	"no"	−ΛS
book ?	"no"	±ΛS	25. comb ?	"no"	SΛS
chip ?	"no"	−ΛS	26. book ?	"no"	SΛS
(label) ?	"yes"	±ΛS	27. (label) ?	"yes"	±ΛS
(label) ?	"yes"	±ΛS	28. (label) ?	"yes"	±ΛS
(label) ?	"yes"	0Λ0	29. (label) ?	"yes"	−ΛS
comb ?	"no"	±ΛS	30. chip ?	"no"	0Λ0
radio	"no"	−ΛS	31. (label) ?	"yes"	0ΛS
(label) ?	"yes"	−ΛS	32. radio ?	"no"	±ΛS

Score [illegible] components as correct (+); incorrect (−), shaped or prompted (S); or no [illegible]. For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

	Nonspeech					Speech				Acceptability	
	+	−		S	0	+	−	S	0	+	0
[illegible]	17	0	6	2	7	0	0	26	6		
[illegible]	53	0	19	6	22	0	0	81	19		

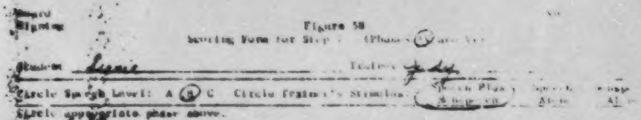


Figure 58

Scoring Form for Step 7 (Phases [✓ IV] and VI)

Student Lizzie Trainer Judy

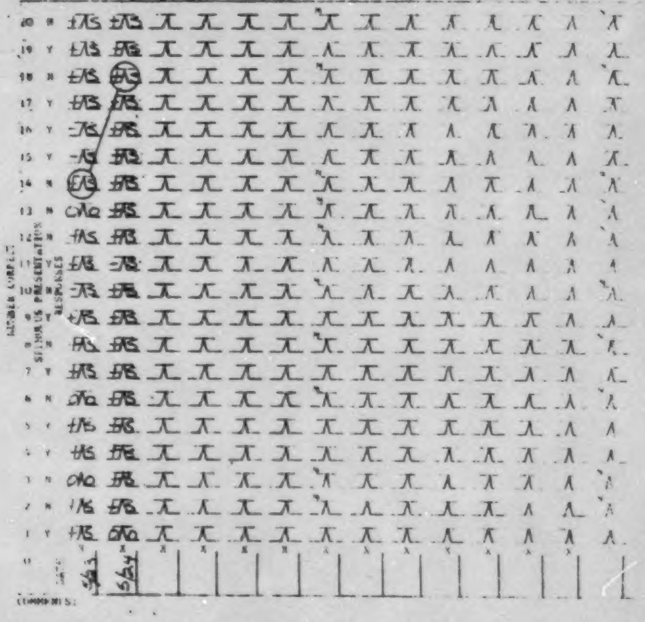
Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Circle appropriate phase above.

Item: ball

3) IS THIS A (LABEL)?* Y="yes" N="no"

*LABEL included in this question depends on "Y" or "N" code in the stimulus column.



NUMBER CORRECT
STIMULUS PRESENTATION
RESPONSES
DATE
5/23
5/24
COMMENTS:

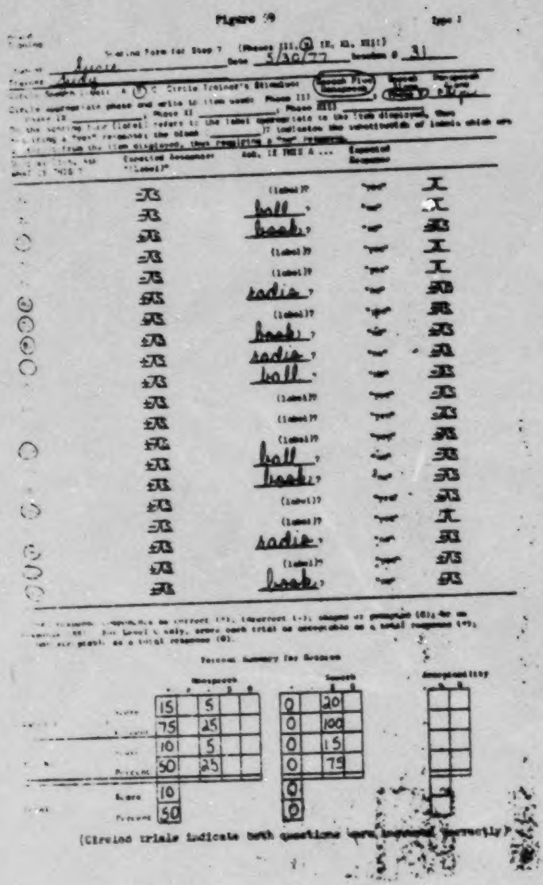


Figure 59

Type 1

Scoring Form for Step 7 (Phase III, [✓ X], IX, XI, XIII)

Subject: Lucie

Trainer: Judy

Date: 5/30/77

Session #: 31

Circle Speech Level: A [✓ B] C

Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech]

Score	15		5			0		20	
Percent	75		25			0		100	
Score	10		5			0		15	
Percent	50		25			0		75	
Score	10					0			
Percent	50					0			

(Circled trials indicate both questions were answered correctly)

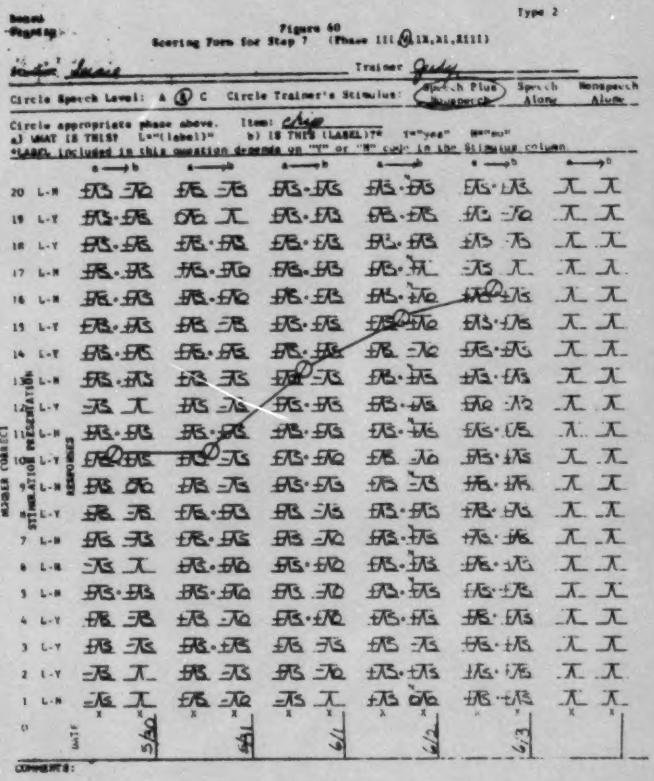


Figure 60

Type 2

Scoring Form for Step 7 (Phase III, [✓ X], IX, XI, XIII)

Trainer: Judy

Circle Speech Level: A [✓ B] C

Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Circle appropriate phase above. Item: chip

a) WHAT IS THIS? L="(label)"

b) IS THIS (LABEL)?* Y="yes" N="no"

*LABEL included in this question depends on "Y" or "N" code in the Stimulus column.

COMMENTS:

Type 1

Figure 61

Scoring Form for Step 7 (Phases IV and [✓ VI])

Student: Susie Date 6/16/77 Session # 36

Trainer: Judy

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Circle appropriate phase and write in item used Phase IV ________ Phase [✓ VI] chip

(item label) on the scoring form refers to the label appropriate to the item displayed, thus requiring a "yes" response. The blank (__________?) indicates the substitution of labels which are different from the item displayed, thus requiring a "no" response.

Display item, ask IS THIS A	Expected Response	Score	Display item, ask IS THIS A	Expected Response	Score
(label) ?	"yes"	-RS	17. (label) ?	"yes"	-R0
ball ?	"no"	±RS	18. radio ?	"no"	±RS
book ?	"no"	±RS	19. (label) ?	"yes"	±RS
(label) ?	"yes"	0RS	20 book ?	"no"	-RS
(label) ?	"yes"	-R0	21. ________ ?	"yes"	-RS
radio ?	"no"	±RS	22. ball ?	"no"	±RS
(label) ?	"yes"	-RS	23. (label) ?	"yes"	±RS
comb ?	"no"	±RS	24. comb ?	"no"	-RS
book ?	"no"	-RS	25. book ?	"no"	0R0
radio ?	"no"	±RS	26. ball ?	"no"	±RS
(label) ?	"yes"	-RS	27. (label) ?	"yes"	-RS
(label) ?	"yes"	±RS	28. (label) ?	"yes"	-RS
(label) ?	"yes"	0R0	29. (label) ?	"yes"	-RS
ball ?	"no"	-R0	30. comb ?	"no"	-RS
comb ?	"no"	-RS	31. (label) ?	"yes"	±RS
16. (label) ?	"yes"	±RS	32. radio ?	"no"	±RS

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	-	S	0
14	-	13	-	3
Percent 44	0	47	0	9

Speech

+	-	S	0
-	-	27	5
0	0	84	16

Acceptability

+	0

Type 1

Figure 62

Scoring Form for Step 7 (Phases IV and [✓ VI])

Student: Susie Trainer: Judy

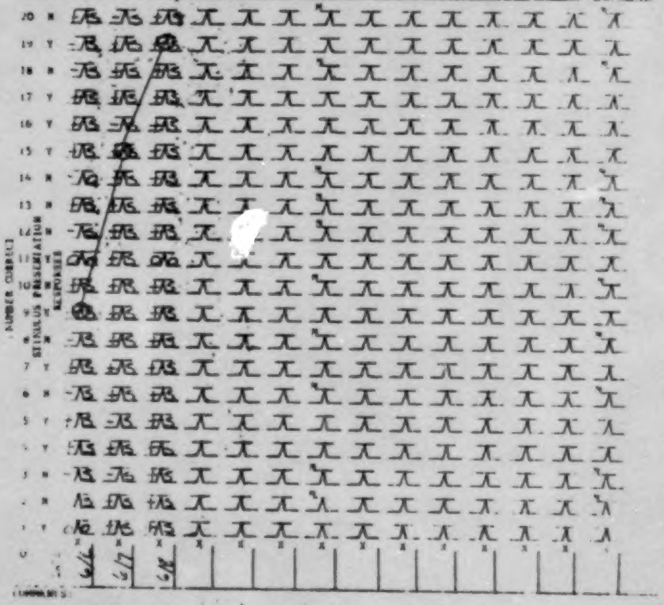
Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Circle appropriate phase above.

Item: chip

a) IS THIS A (LABEL)?* Y="yes" N="no"

*LABEL included in this question depends on "Y" or "N" code in the stimulus column



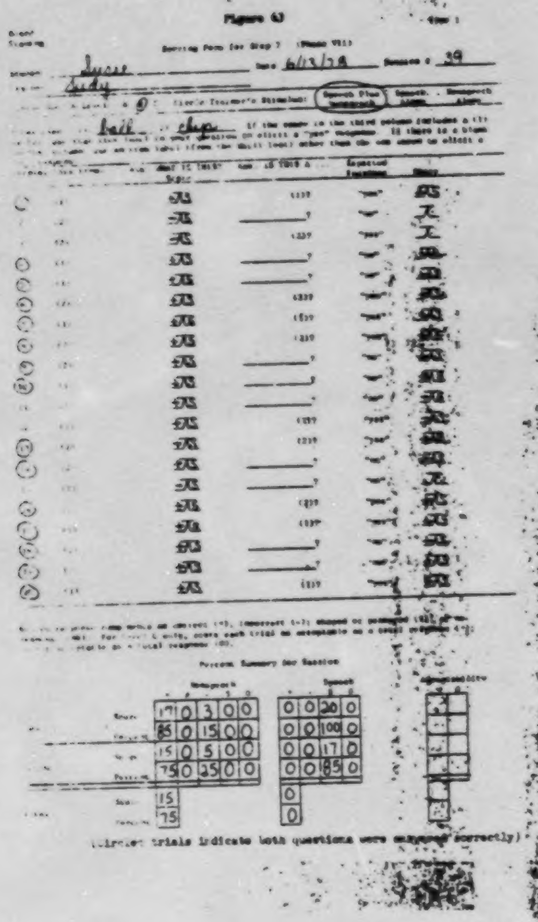


Figure 63

Scoring Form for Step 7 (Phase VII)

Susie Date 6/13/78 Session # 39

Judy

Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

ball chip

17	0	3	0	0	0	0	20	0
85	0	15	0	0	0	0	100	0
15	0	5	0	0	0	0	17	0
75	0	25	0	0	0	0	85	0
15					0			
75					0			

(Circled trials indicate both questions were answered correctly)

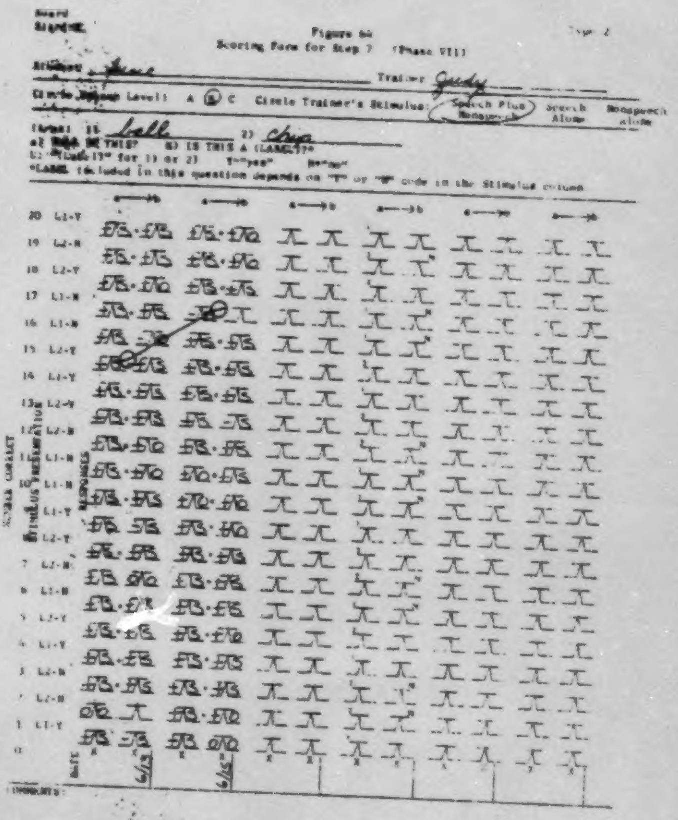


Figure 64

Scoring Form for Step 7 (Phase VII)

Type 2

Trainer Judy

Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

1) ball 2) chip

b) IS THIS A (LABEL)?*

Y="yes" N="no"

*LABEL included in this question depends on "Y" or "N" code in the Stimulus column

6/13 6/14

Type 1

Figure 65

Scoring Form for Step 7 (Phase VIII)

Date 6/17/77 Session # 42

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

1) ball 2) chip

IS THIS	Expected Response	Score	Display this Item	Ask, IS THIS A ...	Expected Response	Score
	"yes"	[illegible]	17. (1)	(1)?	"yes"	[illegible]
ball	"no"	[illegible]	18. (4)	comb ?	"no"	[illegible]
	"yes"	[illegible]	19. (2)	ball ?	"no"	[illegible]
chip	"no"	[illegible]	20. (1)	(1)?	"yes"	[illegible]
book	"no"	[illegible]	21. (1)	book ?	"no"	[illegible]
	"yes"	[illegible]	22. (2)	(2)?	"yes"	[illegible]
	"yes"	[illegible]	23. (2)	comb ?	"no"	[illegible]
	"yes"	[illegible]	24. (1)	(1)?	"yes"	[illegible]
book	"no"	[illegible]	25. (1)	(1)?	"yes"	[illegible]
radio	"no"	[illegible]	26. (1)	radio ?	"no"	[illegible]
comb	"no"	[illegible]	27. (2)	book ?	"no"	[illegible]
	"yes"	[illegible]	28. (4)	(2)?	"yes"	[illegible]
	"yes"	[illegible]	29. (1)	comb ?	"no"	[illegible]
radio	"no"	[illegible]	30. (2)	radio ?	"no"	[illegible]
chip	"no"	[illegible]	31. (1)	(1)?	"yes"	[illegible]
	"yes"	[illegible]	32. (2)	(2)?	"yes"	[illegible]

[illegible] components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

	Nonspeech					Speech				Acceptability	
	+	-	S	0		+	-	S	0	+	0
	7	-	18	3	4	-	-	24	8		
Percent	22	0	56	9	12	0	0	75	25		

Board Signing

Type 2

Figure 66

Scoring Form for Step 7 (Phase VIII)

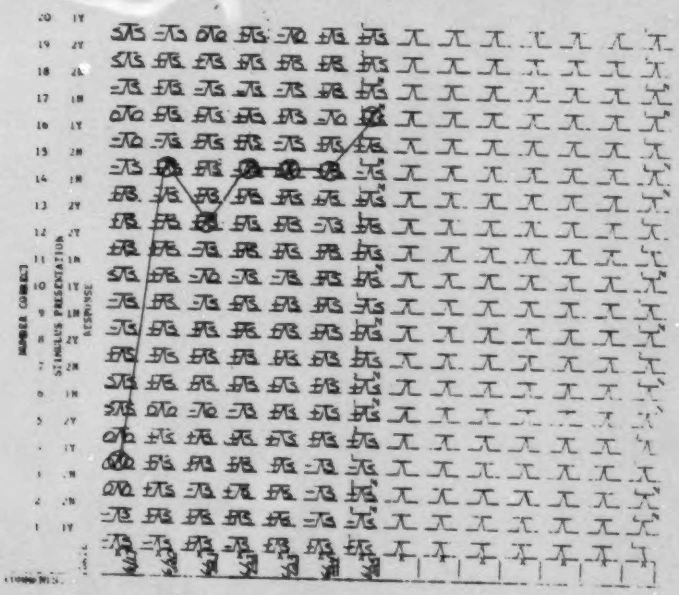
Student Stevie Trainer Judy

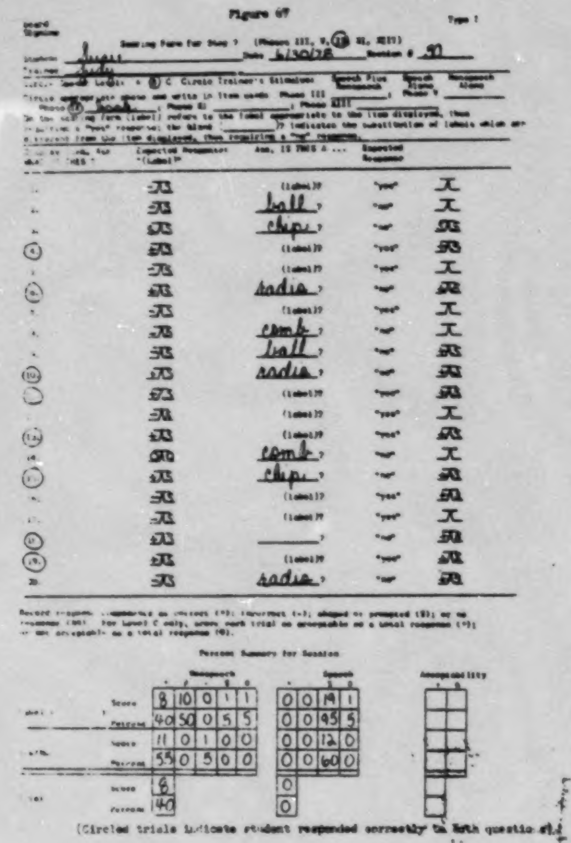
Circle Speech Level: A [✓ B] C · Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) ball 2) chip

a) IS THIS A (LABEL)?* Y: "yes" N: "no"

*LABEL included in this question depends on "Y" or "N" code in the stimulus column





Board Signing

Figure 67

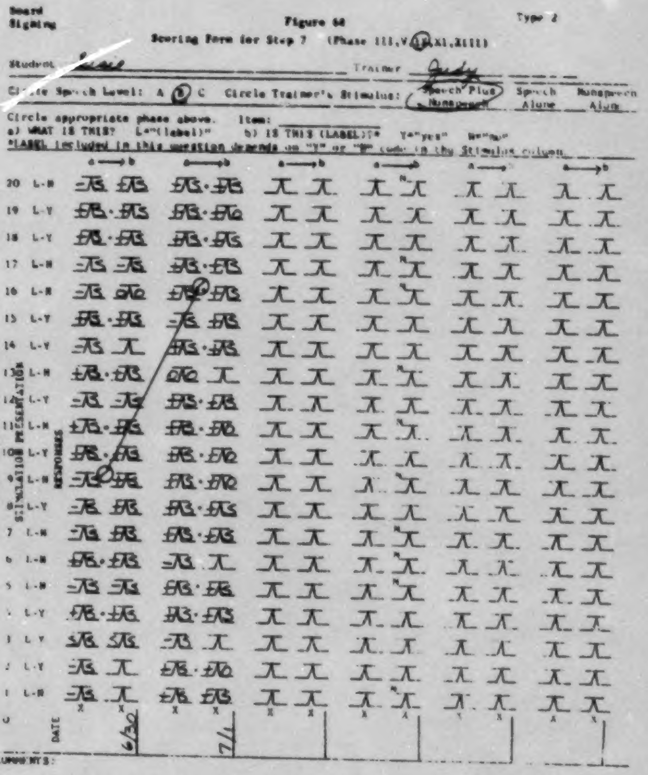
Type 1

Scoring Form for Step 7 (Phase III, V, [✓ IX] XI, XIII)

Student Susie Date 6/30/78 Session # 50

Trainer Judy

(Circled trials indicate student responded correctly to both questions.)



Board Signing

Figure 68

Type 2

Scoring Form for Step 7 (Phase III,V,[✓ IX],XI,XIII)

Student Susie Trainer Judy

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Circle appropriate phase above. Item:

a) WHAT IS THIS? L="(label)" b) IS THIS (LABEL)?* Y="yes" N="no"

*LABEL included in this question depends on "Y" or "N" code in the Stimulus column.

DATE 6/30 7/1

COMMENTS:

Type 1

Figure 69

Scoring Form for Step 7 (Phase X)

Date 7/2/78 Session # 52

Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

1) ball 2) chip 3) book

[illegible]	Expected Response	Score	Display this item	Ask, IS THIS A	Expected Response	Score
(2)?	"yes"	-ΛS	19. (1)	comb ?	"no"	±ΛS
(1)?	"yes"	+ΛS	20. (2)	(2)?	"yes"	±ΛS
ball ?	"no"	±ΛS	21. (2)	ball ?	"no"	±ΛS
(1)?	"yes"	±ΛS	22. (1)	(1)?	"yes"	±ΛS
ball ?	"no"	-ΛO	23. (3)	comb ?	"no"	-ΛS
chip ?	"no"	-ΛS	24. (1)	(1)?	"yes"	-ΛO
(1)?	"yes"	+ΛS	25. (3)	(3)?	"yes"	±ΛS
book	"no"	±ΛS	26. (2)	(2)?	"yes"	±ΛS
(2)?	"yes"	±ΛS	27. (3)	radio ?	"no"	±ΛS
ball ?	"no"	±ΛS	28. (1)	chip ?	"no"	±ΛS
(1)?	"yes"	-ΛS	29. (3)	(3)?	"yes"	-ΛS
book ?	"no"	±ΛS	30. (2)	comb ?	"no"	±ΛS
radio ?	"no"	-ΛS	31. (3)	chip ?	"no"	-ΛS
(3)?	"yes"	±ΛS	32. (1)	(1)?	"yes"	±ΛS
radio	"no"	-ΛS	33. (2)	book ?	"no"	±ΛS
chip	"no"	±ΛS	34. (2)	(2)?	"yes"	±ΛS
(2)?	"yes"	±ΛS	35. (1)	chip ?	"no"	±ΛS
(1)?	"yes"	±ΛS	36. (3)	(3)?	"yes"	±ΛS

[illegible] response components as correct (+); incorrect (-); shaped or prompted (S); or no response (O). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (O).

Percent Summary for Session

Nonspeech

	+	-	S	O	[illegible]
Score	36	-	6	-	-
Percent	72	0	17	0	0

Speech

+	-	S	O
-	-	30	2
0	0	83	5

Acceptability

+	O

Board of Signing

Type 2

Figure 70

Scoring Form for Step 7 (Phase X)

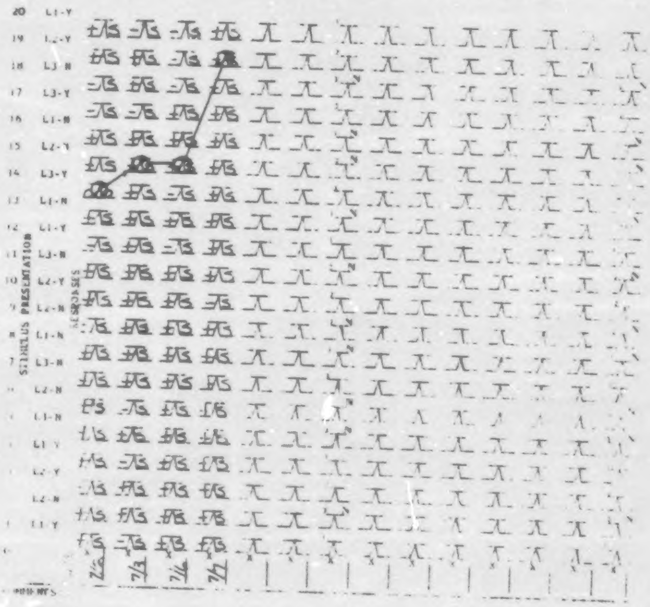
Student Susie Trainer Judy

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) ball 2) chip 3) book

a. IS THIS A (LABEL)?* Y="yes" N="no"

*LABEL included in this question depends on "Y" or "N" code in the stimulus column.



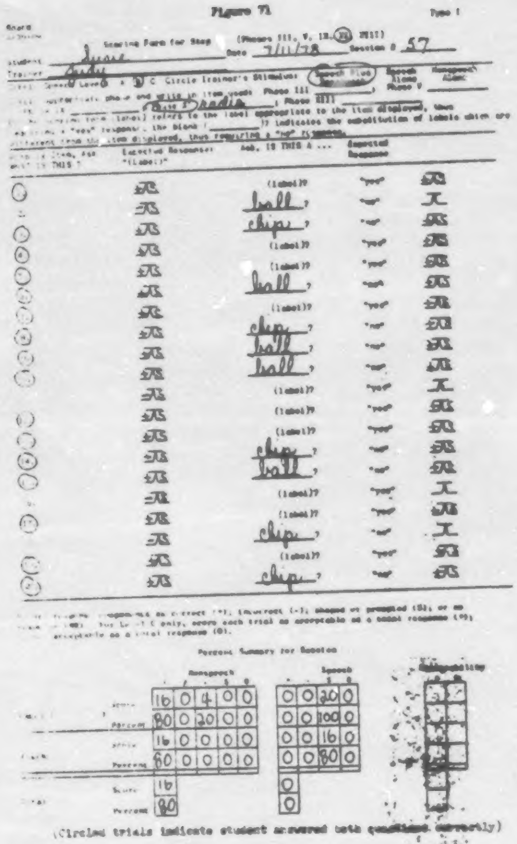


Figure 71 Type I

Board

Scoring Form for Step (Phases III, V, IX, XI, XIII)

Student Susie Date 7/11/78 Session # 57

Trainer Judy

Circle Trainer's Stimulus: Speech Plus Nonspeech / Speech Alone / Nonspeech Alone

Item radio

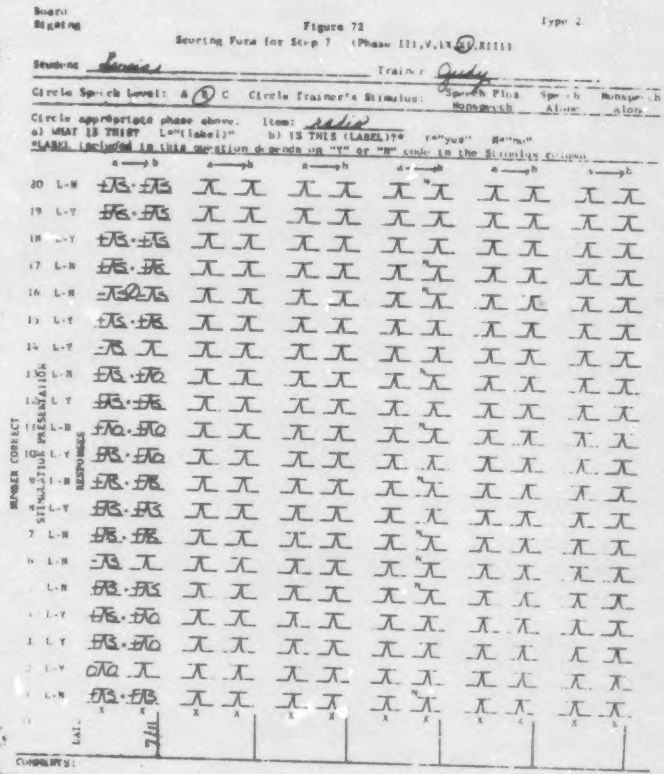
Expected Response: "(Label)" Ask, IS THIS A ... Expected Response

(label)?	"yes"
ball?	"no"
chips?	"no"
(label)?	"yes"
(label)?	"yes"
ball?	"no"
(label)?	"yes"
chip?	"no"
ball?	"no"
ball?	"no"
(label)?	"yes"
(label)?	"yes"
(label)?	"yes"
chip?	"no"
ball?	"no"
(label)?	"yes"
(label)?	"yes"
chip?	"no"
(label)?	"yes"
chip?	"no"

Percent Summary for Session

	Nonspeech					Speech			
Score	16	0	4	0	0	0	0	20	0
Percent	80	0	20	0	0	0	0	100	0
Score	16	0	0	0	0	0	0	16	0
Percent	80	0	0	0	0	0	0	80	0
Total Score	16					0			
Total Percent	80					0			

(Circled trials indicate student answered both questions correctly)



Board Signing

Figure 72 Type 2

Scoring Form for Step 7 (Phase III, V, IX, XI, XIII)

Student Susie Trainer Judy

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: Speech Plus Nonspeech / Speech Alone / Nonspeech Alone

Circle appropriate phase above. Item: radio

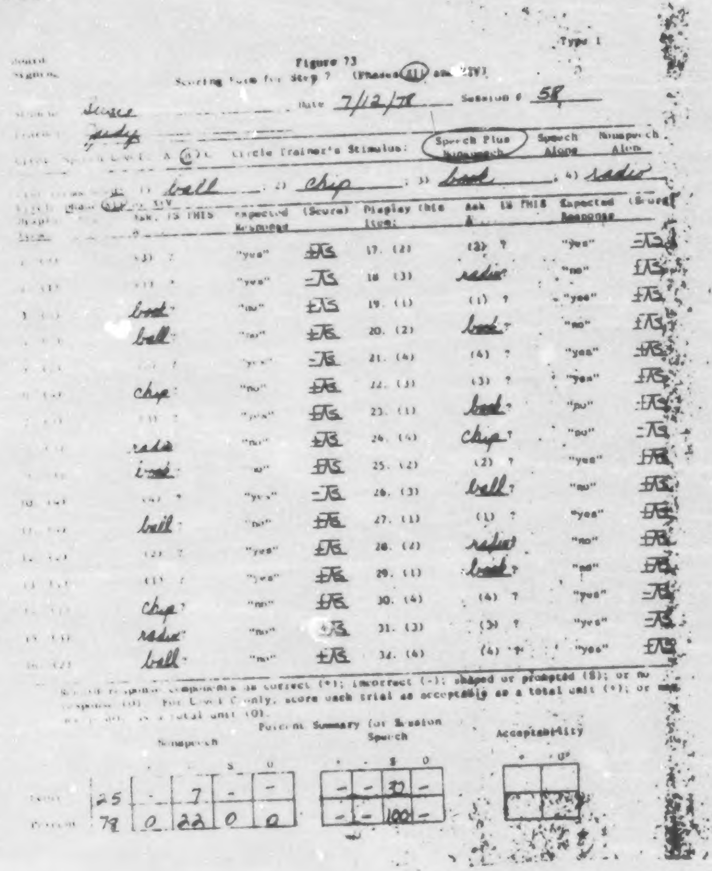
a) WHAT IS THIS? L="(label)" b) IS THIS (LABEL)?* Y="yes" N="no"

*LABEL included in this question depends on "Y" or "N" code in the Stimulus column

NUMBER CORRECT	STIMULUS PRESENTATION
20	L-N
19	L-Y
18	L-Y
17	L-N
16	L-N
15	L-Y
14	L-Y
13	L-N
12	L-Y
11	L-N
10	L-Y
9	L-N
8	L-Y
7	L-N
6	L-N
5	L-N
4	L-Y
3	L-Y
2	L-Y
1	L-N

DATE 7/11

COMMENTS:



Board Signing

Type 1

Figure 73

Scoring Form for Step 7 (Phases [✓ XII] and XIV)

Student Susie Date 7/12/78 Session # 58

Trainer Judy

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Circle Items Used: 1) ball ; 2) chip ; 3) book ; 4) radio

Circle Phase: [✓ XII] XIV

Display this Item	Ask, IS THIS ?	Expected Response	(Score)	Display this Item:	Ask IS THIS ?	Expected Response	(Score)
[illegible]	(3) ?	"yes"	+ - S	17. (2)	(2) ?	"yes"	+ - S
[illegible]	(1) ?	"yes"	+ - S	18. (3)	radio?	"no"	+ - S
3. [illegible]	book?	"no"	+ - S	19. (1)	(1) ?	"yes"	+ - S
[illegible]	ball?	"no"	+ - S	20. (2)	book?	"no"	+ - S
[illegible]	(4) ?	"yes"	+ - S	21. (4)	(4) ?	"yes"	+ - S
[illegible]	chip?	"no"	+ - S	22. (3)	(3) ?	"yes"	+ - S
[illegible]	(3) ?	"yes"	+ - S	23. (1)	book?	"no"	+ - S
[illegible]	radio?	"no"	+ - S	24. (4)	chip?	"no"	+ - S
[illegible]	[illegible]	"no"	+ - S	25. (2)	(2) ?	"yes"	+ - S
10. (4)	(4) ?	"yes"	+ - S	26. (3)	ball?	"no"	+ - S
[illegible]	ball?	"no"	+ - S	27. (1)	(1) ?	"yes"	+ - S
[illegible]	(2) ?	"yes"	+ - S	28. (2)	radio?	"no"	+ - S
[illegible]	(1) ?	"yes"	+ - S	29. (1)	book?	"no"	+ - S
[illegible]	chip?	"no"	+ - S	30. (4)	(4) ?	"yes"	+ - S
[illegible]	radio?	"no"	+ - S	31. (3)	(3) ?	"yes"	+ - S
[illegible]	ball?	"no"	+ - S	32. (4)	(4) ?	"yes"	+ - S

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

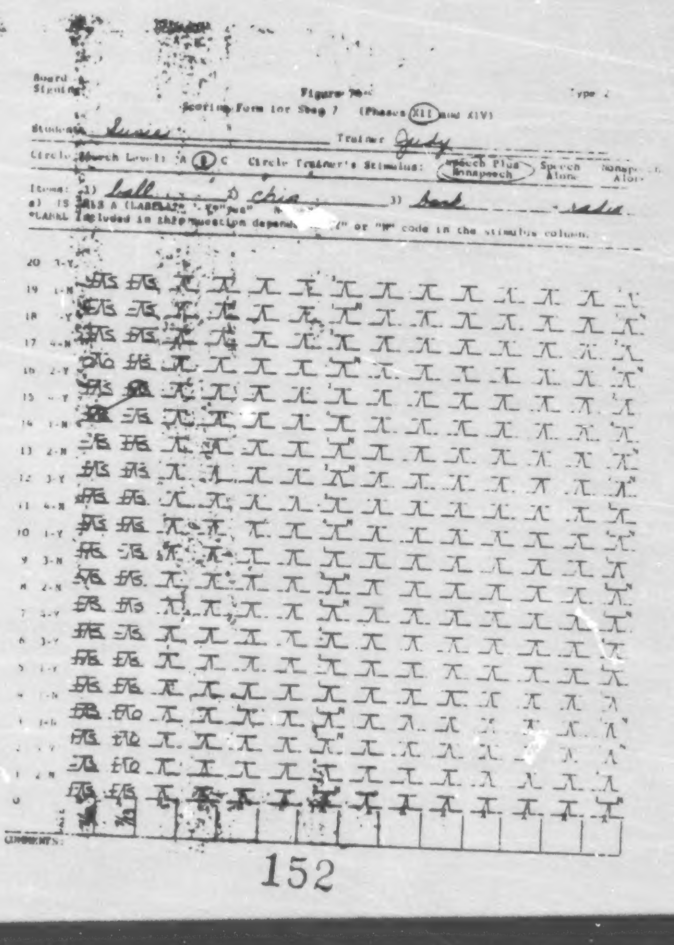
		+	-	S	0
Score	25	-	7	-	-
Percent	78	0	22	0	0

Speech

+	-	S	0
-	-	32	-
-	-	100	-

Acceptability

+	0



Board Signing

Figure 74

Type 2

Scoring Form for Step 7 (Phases [✓ XII] and XIV)

Student Susie Trainer Judy

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) ball 2) chip 3) book 4) radio

a) IS THIS A (LABEL)? "yes"

*LABEL included in the question depends on "Y" or "N" code in the stimulus column.

20 3-Y
19 1-N
18 -Y
17 4-N
16 2-Y
15 -Y
14 1-N
13 2-N
12 3-Y
11 4-N
10 1-Y
9 3-N
8 2-N
7 -Y
6 3-Y
5 -Y
4 -N
3 -N
2 -Y
1 2-N
0

COMMENTS:

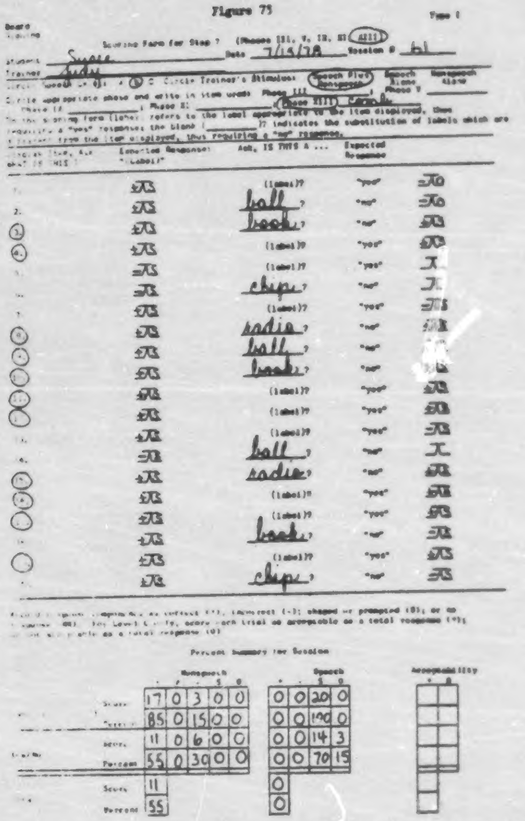


Figure 75

Type I

Board Signing

Scoring Form for Step 7 (Phases III, V, IX, XI [✓ XIII])

Student Susie Date 7/15/78 Session # 61

Trainer Judy

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Circle appropriate phase and write in item words: Phase III ______; Phase V ______; Phase IX ______; Phase XI ______; [✓ Phase XIII] comb

On the scoring form (label) refers to the label appropriate to the item displayed, thus requiring a "yes" response; the blank (______)? indicates the substitution of labels which are different from the item displayed, thus requiring a "no" response.

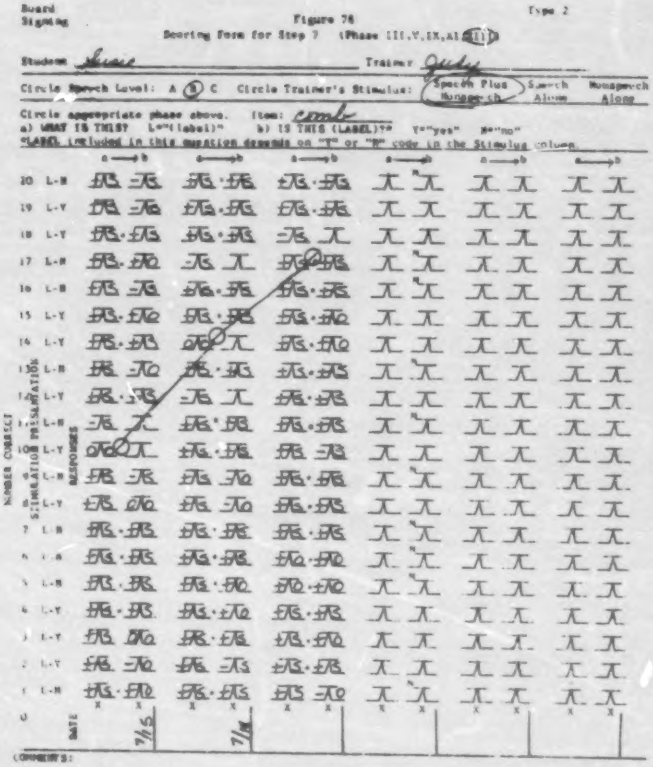
Display Item, Ask WHAT IS THIS?	Ask, IS THIS A ...	Expected Response
1.	(label)?	"yes"
2.	ball?	"no"
3.	book?	"no"
4.	(label)?	"yes"
5.	(label)?	"yes"
6.	chips?	"no"
7.	(label)?	"yes"
8.	sadie?	"no"
9.	ball?	"no"
10.	book?	"no"
11.	(label)?	"yes"
12.	(label)?	"yes"
13.	(label)?	"yes"
14.	ball?	"no"
15.	sadie?	"no"
16.	(label)?	"yes"
17.	(label)?	"yes"
18.	book?	"no"
19.	(label)?	"yes"
20.	chips?	"no"

Score responses as correct (+), incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total response (+); or not acceptable as a total response (0).

Percent Summary for Session

	Nonspeech +	Nonspeech ✓	Nonspeech -	Nonspeech S	Nonspeech 0	Speech +	Speech -	Speech S	Speech 0	Acceptability +	Acceptability 0
Score	17	0	3	0	0	0	0	20	0		
Percent	85	0	15	0	0	0	0	100	0		
Score	11	0	6	0	0	0	0	14	3		
Percent	55	0	30	0	0	0	0	70	15		
Score	11					0					
Percent	55					0					

(Circled trials indicate student answered both questions correctly)



Board Signing

Figure 76

Type 2

Scoring Form for Step 7 (Phase III,V,IX,XI [✓ XIII])

Student Susie Trainer Judy

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Circle appropriate phase above. Item: comb

a) WHAT IS THIS? L="(label)" b) IS THIS (LABEL)?* Y="yes" N="no"

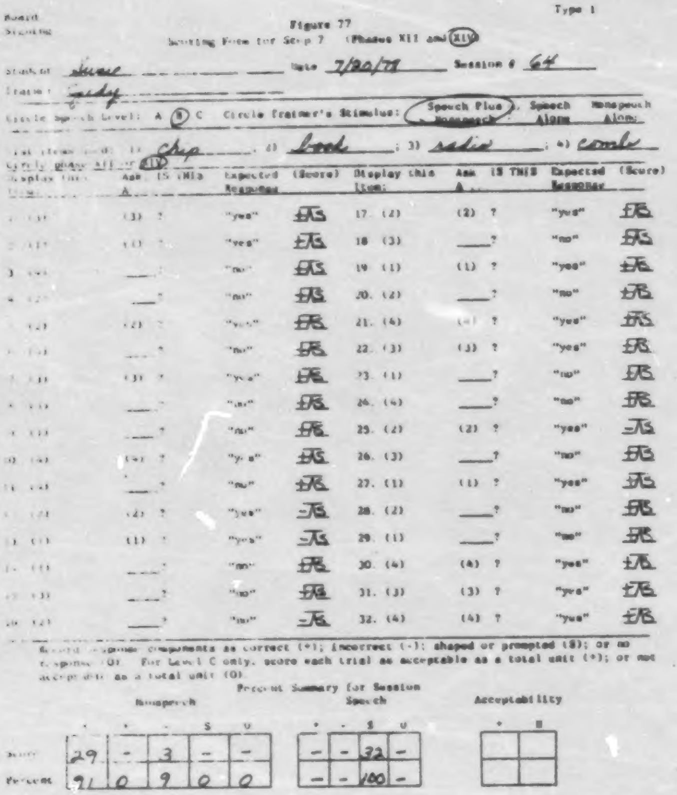
*LABEL included in this question depends on "Y" or "N" code in the Stimulus column.

NUMBER CORRECT STIMULUS PRESENTATION RESPONSES

20 L-N
19 L-Y
18 L-Y
17 L-N
16 L-N
15 L-Y
14 L-Y
13 L-N
12 L-Y
11 L-N
10 L-Y
9 L-N
8 L-Y
7 L-N
6 L-N
5 L-N
4 L-Y
3 L-Y
2 L-Y
1 L-N
0

DATE 7/15 7/18

COMMENTS:



Board
Signing

Type 1

Figure 77
Scoring Form for Step 7 (Phases XII and XIV)

Student *Susie* Date *7/20/78* Session # *64*

Trainer *Judy*

Circle Speech Level: A [✓ B] C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech], Speech Alone, Nonspeech Alone

Trial items used: 1) *chip* ; 2) *book* ; 3) *radio* ; 4) *comb*

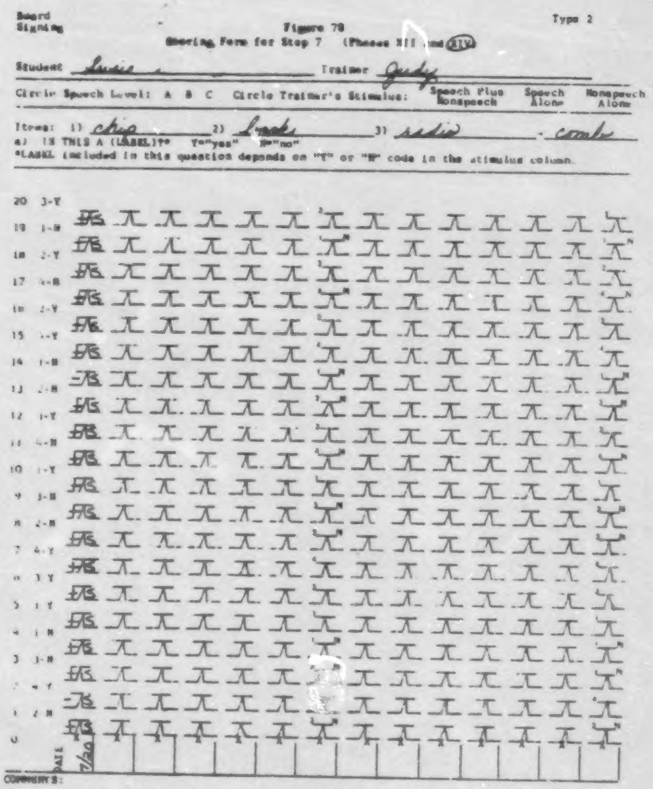
Circle phase XII or [✓ XIV]

Display this Item:	Ask IS THIS A ...	Expected Response	(Score)	Display this Item:	Ask IS THIS A ...	Expected Response	(Score)
1. (3)	(3) ?	"yes"	±ΛS	17. (2)	(2) ?	"yes"	±ΛS
2. (1)	(1) ?	"yes"	±ΛS	18. (3)	____?	"no"	±ΛS
3. (4)	____?	"no"	±ΛS	19. (1)	(1) ?	"yes"	±ΛS
4. (2)	____?	"no"	±ΛS	20. (2)	____?	"no"	±ΛS
5. (2)	(2) ?	"yes"	±ΛS	21. (4)	(4) ?	"yes"	±ΛS
6. (4)	____?	"no"	±ΛS	22. (3)	(3) ?	"yes"	±ΛS
7. (3)	(3) ?	"yes"	±ΛS	23. (1)	____?	"no"	±ΛS
8. (3)	____?	"no"	±ΛS	24. (4)	____?	"no"	±ΛS
9. (1)	____?	"no"	±ΛS	25. (2)	(2) ?	"yes"	-ΛS
10. (4)	(4) ?	"yes"	±ΛS	26. (3)	____?	"no"	±ΛS
11. (4)	____?	"no"	±ΛS	27. (1)	(1) ?	"yes"	±ΛS
12. (2)	(2) ?	"yes"	-ΛS	28. (2)	____?	"no"	±ΛS
13. (1)	(1) ?	"yes"	-ΛS	29. (1)	____?	"no"	±ΛS
14. (1)	____?	"no"	±ΛS	30. (4)	(4) ?	"yes"	±ΛS
15. (3)	____?	"no"	±ΛS	31. (3)	(3) ?	"yes"	±ΛS
16. (2)	____?	"no"	-ΛS	32. (4)	(4) ?	"yes"	±ΛS

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

	Nonspeech +	Nonspeech -	Nonspeech S	Nonspeech 0	Speech +	Speech -	Speech S	Speech 0	Acceptability +	Acceptability 0
Score	29	-	3	-	-	-	32	-		
Percent	91	0	9	0	-	-	100	-		



Board
Signing

Type 2

Figure 78
Scoring Form for Step 7 (Phases XII and XIV)

Student *Susie* Trainer *Judy*

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Items: 1) *chip* 2) *book* 3) *radio* *comb*

a) IS THIS A (LABEL)?* Y="yes" N="no"

*LABEL included in this question depends on "Y" or "N" code in the stimulus column.

20 3-Y
19 1-N
18 2-Y
17 4-N
16 2-Y
15 4-Y
14 1-N
13 2-N
12 1-Y
11 4-N
10 1-Y
9 3-N
8 2-N
7 4-Y
6 3 Y
5 1 Y
4 1-N
3 3-N
2 4-Y
1 2-N
0

DATE *7/20*

COMMENTS:

Board
Signing

Figure 79
Summary Form for Step 7

Speech Level: 8 Trainer's Stimulus: ____

Student Susie Trainer Judy

Date Training Started ____ Date Training Ended ____ Total Sessions to Criterion ____

Percent Correct Responses Across Sessions

Phase "yes"/"no"	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Speech Approximations
I		0	0	0	22	[illegible]	28	28	41	44	44	34	47	59	75	75	75	75	81										
II																				0	0	44	55	53	84				
III																										45	65	80	
IV																													
V																													
VI																													
VII																													
VIII																													
IX																													
X																													
XI																													
XII																													
XIII																													
XIV																													
Skill Test	3																												
Date	[illegible]	[illegible]	[illegible]	4/14	4/15	4/18	4/19	4/20	4/21	4/22	4/25	4/27	4/28	4/29	5/2	5/3	5/4	5/5	5/6	5/9	5/10	5/11	5/12	5/13	5/16	5/17	5/18	5/19 5/20	

Board
Signing

Figure 79 (continued)
Summary Form for Step 7

Speech Level: 8 Trainer's Stimulus: speech + sign

Student Susie Trainer Judy

Date Training Started ____ Date Training Ended ____ Total Sessions to Criterion ____

Percent Correct Responses Across Sessions

Phase "yes"/"no"	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	Speech Approximations
I																													
II																													
III																													
IV	72	88																											
V			50	50	65	75	80																						
VI								44	78	91																			
VII											75	85																	
VIII														22	75	66	78	78	78	84									
IX																						45	80						
X																								72	78	78	94		
XI																													
XII																													
XIII																													
XIV																													
Skill Test													22								56							69	
Date	5/23	5/24	5/30	5/31	6/1	6/2	6/3	6/6	6/7	6/8	6/13	6/15	6/16	6/17	6/20	6/21	6/22	6/23	6/24	6/27	6/28	6/30	7/1	7/2	7/3	7/6	7/7	7/8	

Board
Signing

Figure 79 (continued)
Summary Form for Step 7

Speech Level: 8 Trainer's Stimulus: speech + sign

Student Susie Trainer Judy

Date Training Started ____ Date Training Ended ____ Total Sessions to Criterion 65

Percent Correct Responses Across Sessions

Phase "yes"/"no"	57	58	59	60	61	62	63	64	65	Speech Approximations
I										
II										
III										
IV										
V										
VI										
VII										
VIII										
IX										
X										
XI	80									
XII		78	81							
XIII					50	70	95			
XIV								91		
Skill Test				75					81	
Date	7/11	7/12	7/13	7/14	7/15	7/18	7/19	7/20	7/21	

(Circled percentages represent criterion based on 12 consecutive correct responses.)

STEP 8

(Requesting Items with the Pronoun "I")

GENERAL INSTRUCTIONS

Training Goal

To train the student to use a three-word response, including the pronoun "I," when requesting items. This Step is further training in the control dimension (i.e., saying things which direct another person to do something).

Training Items

Ten items (foods, liquids, toys, etc.) that are especially liked by the student. It is most important that the student actually does want the items presented in training and that the student can correctly label the items.

Procedures

Use the Training and Correction Procedure. See Flow Chart, Figure 80, for this Step's training sequence.

SPECIFIC INSTRUCTIONS

STEP 8a: TRAINER USES SPEECH AND SIGN

Phase I

1. Hold up each item, one at a time, and ask in speech and sign, WHAT DO YOU WANT? A correct response must include the pronoun, "I,: the verb "want," and the correct label for the item shown (e.g., "I want drum" when the drum is shown).

2. Give the student the item for correct responses. If the item is nonconsumable, let the student play with it before asking that it be given back for use in further trials. When you ask that the item be returned, extend your hand and say, I WANT THE (ITEM).

3. Partial responses by the student are common to this Step. Most typically the student will omit the pronoun "I" when making a request. When partial responses are given, you should emphasize the missing component when making the correction. Examples of typical trials using the Training and Correction Procedure are presented in Table 26. These examples are keyed to three trials of the sample Scoring Forms for Step 8 presented in Figures 81 and 82.

4. Present the ten items three times each in a session as indicated on the Type 1 Scoring Form for Step 8 (Figure 81). Present each item two times each in a session if using Type 2 forms (Figure 82).

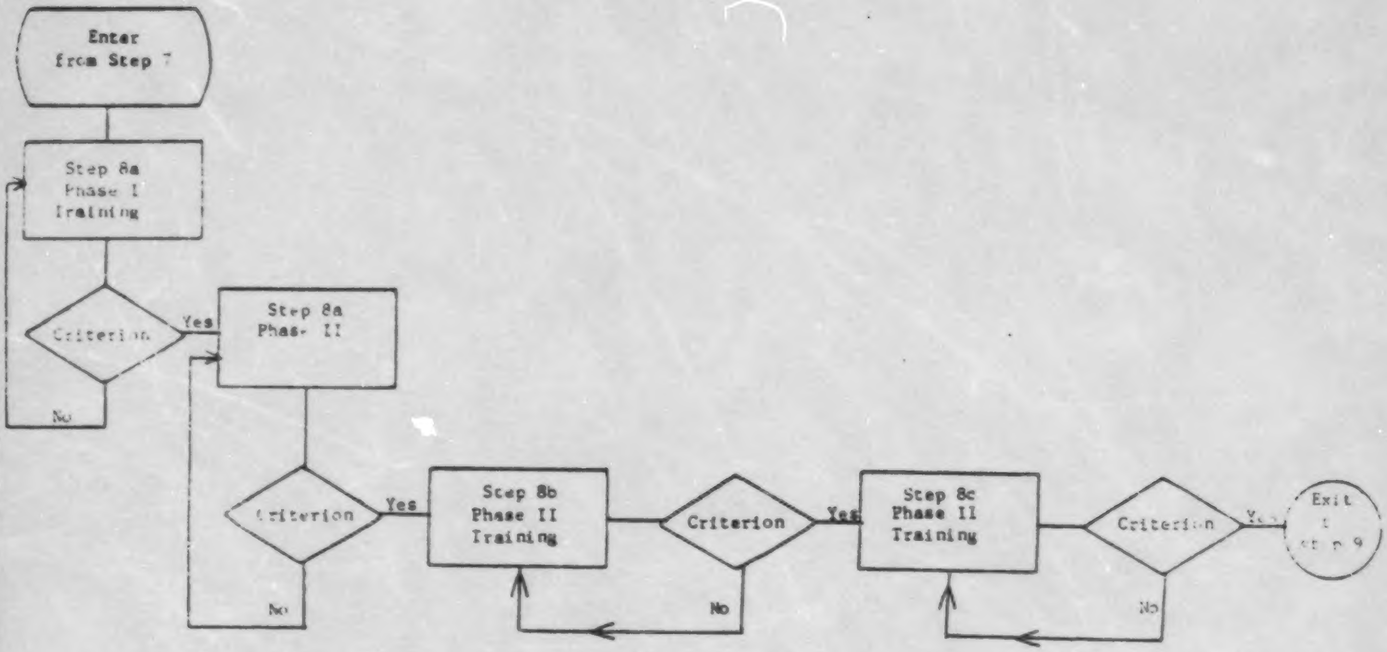


Figure 80: Order of Training for Step 8 of the Signing Program

Table 26

Example Trials* for Step 8a Phase I
Level C Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Type 1 Trial 4 Type 2 Trial 3	
(Trainer shows ball.)	
what do you want / WHAT DO YOU WANT?	ball / BALL
wrong say I want ball / WRONG. SAY I WANT BALL.	I want ball / AH WAN BALL
much better / MUCH BETTER. (Scores $[=\overset{0}{\wedge}=]$).	(Student gives ball.)
what do you want / WHAT DO YOU WANT?	ball / BALL
(Does nothing. Goes to next trial.)	
Type 1 Trial 7 Type 2 Trial 7	
(Trainer shows cracker.)	
what do you want / WHAT DO YOU WANT?	I want cracker / (no response)
wrong you talk / WRONG, YOU HAVE TO TALK. (Scores $[\pm\overset{0}{\wedge}0]$).	
what do you want / WHAT DO YOU WANT?	I want cracker / AH WAN KACK
much better good talking / MUCH BETTER. GOOD TALKING! (Gives student a cracker.)	
Type 1 Trial 9 Type 2 Trial 1	
(Shows student car.)	
what do you want / WHAT DO YOU WANT?	I want car / AH WAN CAR
great / GREAT. (Scores $[\pm\overset{+}{\wedge}\pm]$. Gives student ball.)	
I want ball / I WANT BALL.	(Student gives ball.)
thank you / THANK YOU.	

---

*Example trials for this Table correspond to those trials with asterisks (*) on Example Scoring Forms, Figures 81 and 82 .

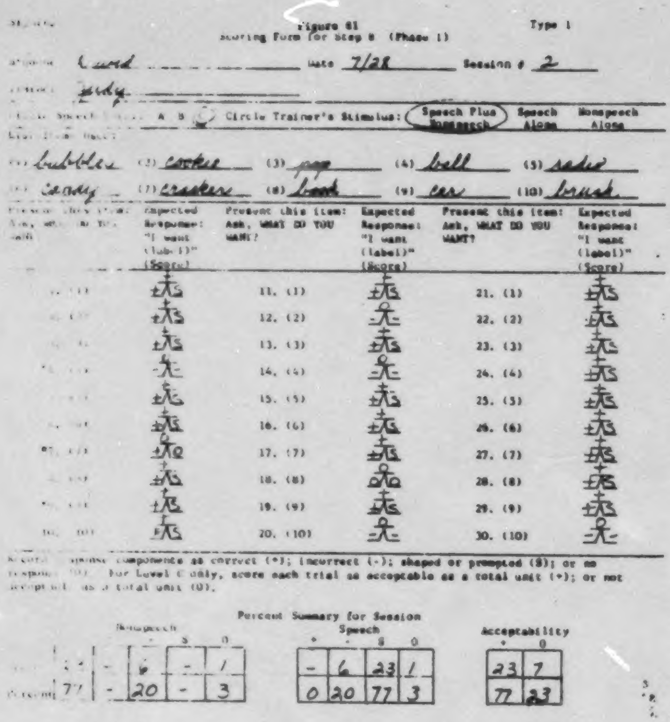


Figure 61 Type 1
Scoring Form for Step 8 (Phase 1)

David Date 7/28 Session # 2

Judy

A B C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

(1) bubbles (2) cookie (3) pop (4) ball (5) radio
(6) candy (7) crackers (8) book (9) car (10) brush

Expected Response: "I want (label)" (Score)	Present this item: Ask, WHAT DO YOU WANT?	Expected Response: "I want (label)" (Score)	Present this item: Ask, WHAT DO YOU WANT?	Expected Response: "I want (label)" (Score)
	11. (1)		21. (1)	
	12. (2)		22. (2)	
	13. (3)		23. (3)	
	14. (4)		24. (4)	
	15. (5)		25. (5)	
	16. (6)		26. (6)	
	17. (7)		27. (7)	
	18. (8)		28. (8)	
	19. (9)		29. (9)	
	20. (10)		30. (10)	

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

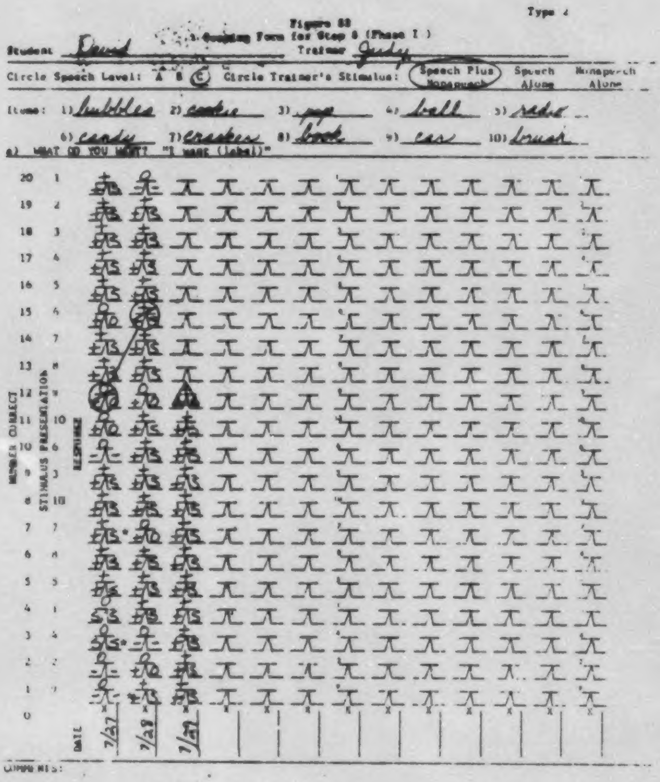
	+	-	S	0
	[illegible]	6	-	1
Percent	77	20	-	3

Speech

+	-	S	0
-	6	23	1
0	20	77	3

Acceptability

+	0
23	7
77	23



Type 4

Figure 63
Scoring Form for Step 8 (Phase I)

Student David Trainer Judy

Circle Speech Level: A B [✓ C] Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) bubbles 2) cookie 3) pop 4) ball 5) radio
6) candy 7) crackers 8) book 9) car 10) brush

a) WHAT DO YOU WANT? "I want (label)"

COMMENTS:

5. Tally correct responses on the scoring form. Use the Percent Conversion Table for 30-trial and 20-trial sessions in Appendix A for converting the numbers to percents.

6. Record the percent correct responses for each session on the Summary Form for Step 8 presented in Figure 85.

7. Continue training until criterion performance is reached (80 percent or 12 consecutive correct responses in a session). Advance the student to Phase II when criterion is met.

Phase II

1. Place all 10 items at once in full view of the student. Call the student's attention to the variety of items. Being careful to not look directly at or touch any item, ask in speech and sign WHAT WANT? The student may ask for any of the 10 items. The responses are considered correct if they meet the standards described in Phase I. Some students may need much prompting to respond initially. Students may also ask for only one of the ten items during successive trials. Although the trainer may encourage other selections, the student may ask for and receive any item any number of items.

2. If the item requested was consumable, replace the item in the display. If the item is non-consumable, request it back after the student has played with it for a short time. When all 10 items are displayed again, repeat the procedure.

   Continue the procedure until all trials on the Scoring Form (Step 8, Phase II) are completed (or until criterion is reached). Table 27 and Figures 83 and 84 show example Step 8 training.

3. Tally, compute, and record responses on the scoring form and summary form (See figure 85 for Sample Summary Form). Continue training until criterion performance is reached.

4. Advance the student to Step 8b when criterion performance is reached and initiate generalization training for Step 8.

STEPS 8b and 8c: TRAINER USES SPEECH AND SIGN ALONE

Steps 8b and 8c are taught exactly as Phase II of 8a except the Trainer uses only speech to ask WHAT WANT? in 8b and only signs for the question in 8c. Only Phase II is used in 8b and 8c.

Advance the student to Step 9 when criterion is reached on 8c.

PROGRAMMING FOR GENERALIZATION

Refer to procedures for generalization as described for Step 3: "What want?". The procedures in Step 3 may be followed exactly as written with one addition. The student should be encouraged to include "I" in his/her response. For example: "I want ball."

Table 27

Example Trials* for Step 8a (Phase II)
Level C Student
Signing

Trainer sign / SPEECH	Student sign / SPEECH
Type 1 Trial 1 Type 2 Trial 1	
(Displays 10 preferred items.)	
what do you want / WHAT DO YOU WANT?	I want car / AH WAN CAR
very good / VERY GOOD (Gives student car. Scores $\left[\underline{+}\overset{+}{\wedge}\underline{S}\right]$).	
I want car / I WANT CAR	(Student returns car.)
thank you / THANK YOU.	
Type 1 Trial 2 Type 2 Trial 2	
what do you want / WHAT DO YOU WANT?	I want pop / AH WAN POP
ok here pop / OK, HERE'S SOME POP. (Gives student some pop. Scores $\left[\underline{+}\overset{+}{\wedge}\underline{S}\right]$).	
Type 1 Trial 3 Type 2 Trial 3	
what do you want / WHAT DO YOU WANT?	I want bubbles / AH WAN BUBBOLS
very nice talking / VERY NICE TALKING! (Gives student bubbles to blow. Scores $\left[\underline{+}\overset{+}{\wedge}\underline{S}\right]$).	
I want bubbles / I WANT BUBBLES.	(Student returns bubbles.)
thank you / THANK YOU.	

---

*Example trials for this Table correspond to those trials with asterisks (*) on Example Scoring Forms, Figures 83 and 84 .

Signing

Figure 83
Scoring Form for Step 8 (Phase II)

Type 1

Student David Date 7/30 Session # 4

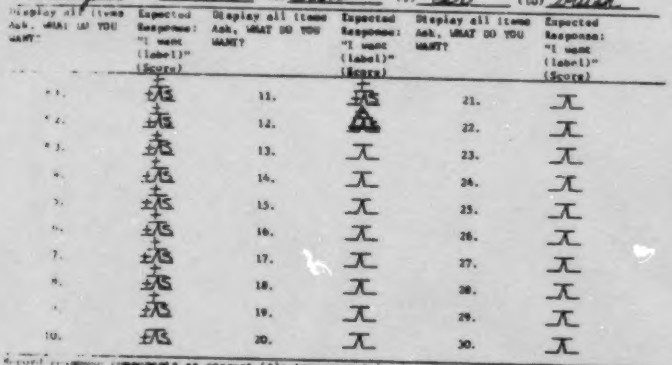
Trainer Judy

Circle Speech Level: A B [✓ C] Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

List Items Used

(1) bubbles (2) cookie (3) pop (4) ball (5) radio

(6) candy (7) cracker (8) book (9) car (10) brush



Display all items Ask, WHAT DO YOU WANT?	Expected Response: "I want (label)" (Score)	Display all items Ask, WHAT DO YOU WANT?	Expected Response: "I want (label)" (Score)	Display all items Ask, WHAT DO YOU WANT?	Expected Response: "I want (label)" (Score)
* 1.		11.		21.	
* 2.		12.		22.	
* 3.		13.		23.	
4.		14.		24.	
5.		15.		25.	
6.		16.		26.	
7.		17.		27.	
8.		18.		28.	
9.		19.		29.	
10.		20.		30.	

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	+	-	S	0
Score	12				
Percent	100	0	0	0	0

Speech

+	-	S	0
—	—	12	—
—	—	100	—

Acceptability

+	0
12	—
100	—

Signing

Figure 84
Scoring Form for Step 8 (Phase II)

Type 2

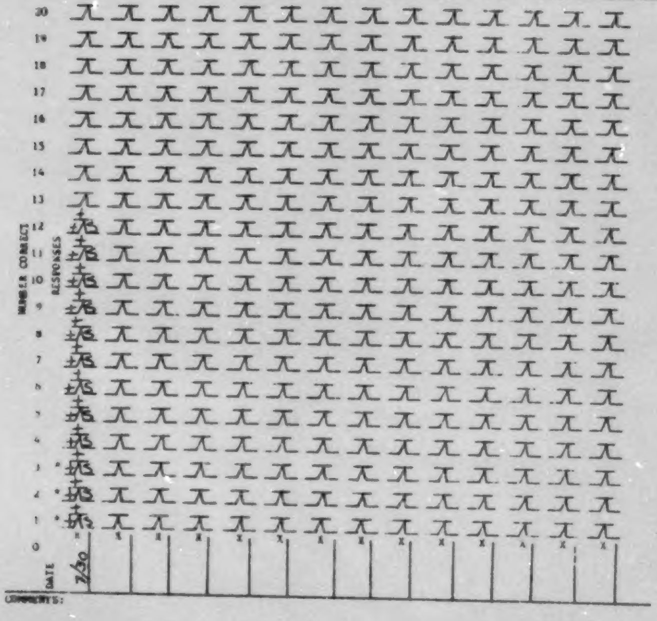
Student David Trainer Judy

Circle Speech Level: A B [✓ C] Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) bubbles 2) cookie 3) pop 4) ball 5) radio

6) candy 7) cracker 8) book 9) car 10) brush

a) WHAT DO YOU WANT? "I want (label)"



COMMENTS:

Stimulus

Figure 85

Summary Form for Step 8

Speech Level: C Trainer's Stimulus: speech + sign

Student: David Trainer Judy

Date Training Started ______ Date Training Ended: ______ Total Sessions to Criterion: 4

Percent Correct Responses Across Sessions

"I want [illegible]"

Session #																			Speech Approximations
	1	2	3	4															
Phase I	60	77	100																
Phase II				100															
Date	7/27	7/28	7/29	7/30															

Session #																			Speech Approximations
Phase I																			
Phase II																			
Date																			

(Circled percentages represent criterion based on 12 consecutive correct responses.)

STEP 9

(Naming and Requesting Items)

GENERAL INSTRUCTIONS

Training Goal

To combine (chain together) two previously learned responses, i.e., labeling items and requesting the same items. This Step is concerned with integration. The student must learn to discriminate between two questions (i.e., WHAT IS THAT? and WHAT DO YOU WANT?), and answer with the appropriate responses which were taught in prior, and separate, Steps.

Training Items

Ten items the student has learned to label and will desire.

Procedures

Use the Total Communication Training and Correction Procedure. See Figure 86 for the Step's training sequence.

SPECIFIC INSTRUCTIONS

STEP 9a: TRAINER USES SPEECH AND SIGN

For the student to be successful in this Step, it is important that he or she first be able to make a discrimination between the two questions, WHAT IS THAT? and WHAT DO YOU WANT? Accordingly, Step 9 has two phases. In Phase I the student must demonstrate the ability to discriminate between the two questions by responding appropriately. In Phase II the two responses are chained together.

Phase I

1. Select five items for training. Three of these items should be symbolized. Two items should not be symbolized. Present each item randomly, and on separate trials. On one-half the trials, hold up the item and ask WHAT IS THAT? For correct responses, the student must sign the object label (e.g., "car"). On the remaining trials, hold up the item and ask, WHAT DO YOU WANT? The correct response to this question is the pronoun "I," the verb "want," and the appropriate label for the item (e.g., "I want car"). The student should be given the item for a correct response, as in Step 8. If the item is nonconsumable, allow the student to play with it for a while before requesting that the item be returned.. When requesting the item back, extend your hand and say I WANT THE (ITEM).
2. Use the Scoring Forms for Step 9 (Phase I) presented in Figures 87 and 88. Refer to the Percent Conversion Table for 20-trial Session in Appendix A for determining percent scores for the session.

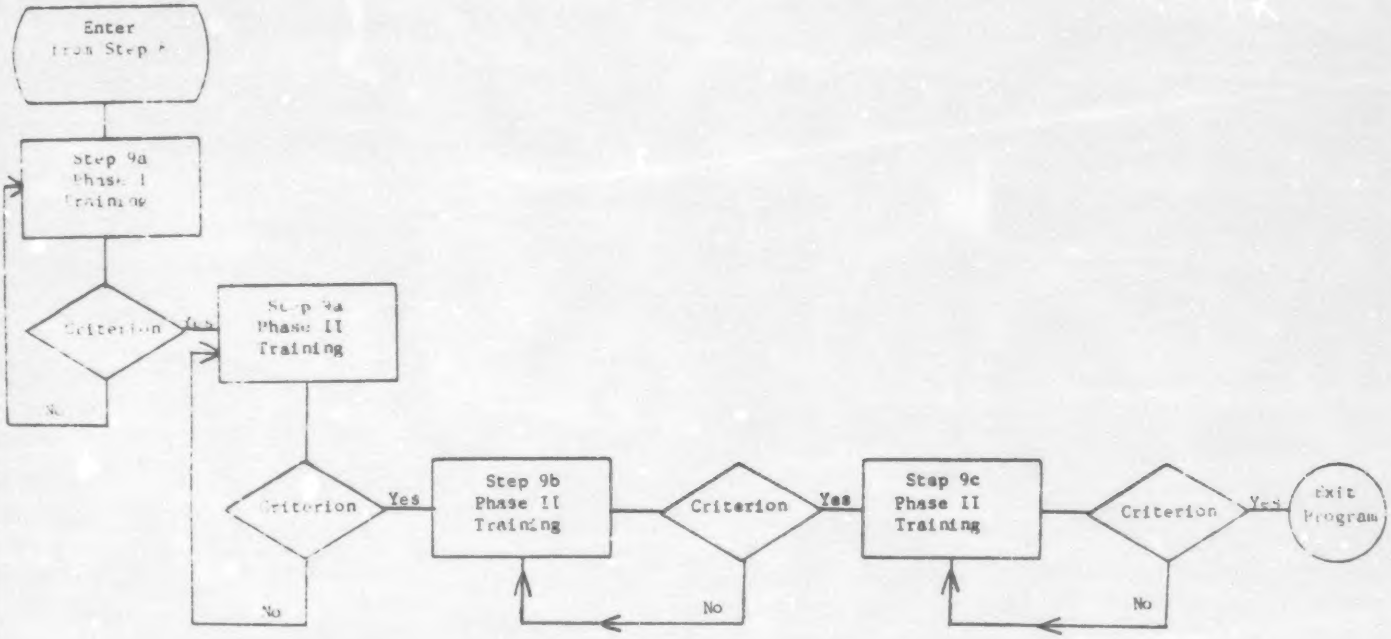


Figure 86: Order of Training for Step 9 of
the Signing Program

3. Enter total percent correct in the Summary Form for Step 9 in Figure 91. Continue training until criterion performance is achieved, then advance the student to Phase II of Step 9.

Phase II

1. Openly display 10 items so the student can examine them visually. Five items are symbolized, five items are not. The items can be placed in a box, on a table, on shelves, or on the floor. The training setting should be fairly unstructured, with room for the student to move about and examine the items.

2. Point to the items, one at a time, and ask WHAT IS THAT? For correct responses the student must provide the correct label (e.g., "drum"). You then confirm the student's response (e.g., YES, THAT IS A DRUM), and follow with the second question, WHAT DO YOU WANT? The student must now ask for the item using the pronoun "I," the verb, "want," and the appropriate item label (e.g., "I want drum"). The item is given to the student for a correct response as before.

3. Corrections and prompts should follow each separate response in the chain if needed. If the student does not respond or incorrectly responds to the first question (WHAT IS THAT?) go to the next trial without presenting the second question (WHAT DO YOU WANT?). The second question can be presented, however, if the student responds appropriately to the first question following the correction procedure.

   If the student makes an error or does not respond to the second question (WHAT DO YOU WANT?), it is not necessary to re-present the first question (WHAT IS THAT?) before using the correction procedure.

4. Use the Scoring Form for Step 9 (Phase II) presented in Figures 89 and 90, score trials separately for labeling responses and requesting responses. Criterion, however, is based only on those trials in which both responses are correct in the same trial (i.e., the student must first label the item correctly and make the appropriate request for the same item). These are indicated either by the circles around the trial numbers or dots between the grid columns in the Scoring Forms for Step 9. Scores for those trials in which both responses are correct in the same trial are entered at the bottom of the Type 1 scoring form. The Percent Conversion Table for 20-trial Session (Appendix A) of original manual is used for this Step. For Type 2 Scoring Forms, tally the number of correct responses and circle on the "b" column.

5. Enter Total percent correct on the Summary Form for Step 9 shown in Figure 91. Train to criterion and then initiate Step 9b and 9c, and begin programming for generalization as described below.

STEPS 9b and 9c: TRAINER USES SPEECH AND SIGN ALONE

Steps 9b and 9c are taught as described in Phase II of Step 9a with the stimulus conditions used singly.

NOTE: At this point the student is ready to begin training on Part II of the program which pertains to actions with persons and things.

PROGRAMMING FOR GENERALIZATION

Combine the procedures for programming for generalization as described in Step 1: "What's that?" and Step 3: "What want?" to obtain a two-response chain. Present items the student likes and ask "What is that?" When the student correctly labels the item then ask "What do you want?" Give the item to the student for correct responses that include the complete sentence, "I want __________."

Refer to Table 12 for functional examples of generalization across persons, places and cues.

Signing

Figure 87

Scoring Form for Step 9 (Phase 1)

Type 1

Student Joe Date 8/4/78 Session # 1

Trainer Judy

Circle Speech Level: [✓ A] B C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

List Items used: 1) bubbles 2) cookie 3) candy 4) comb 5) car

Presentation	Item	Ask this Question	Expected Response	Score
1.	(2)	WHAT IS THAT?	"(label)"	+π
2.	(5)	WHAT DO YOU WANT?	"I want (label)"	-π
3.	(1)	WHAT DO YOU WANT?	"I want (label)"	-π
4.	(4)	WHAT IS THAT?	"(label)"	0π
5.	(3)	WHAT IS THAT?	"(label)"	+π
6.	(2)	WHAT DO YOU WANT?	"I want (label)"	+π
7.	(4)	WHAT IS THAT?	"(label)"	Sπ
8.	(1)	WHAT DO YOU WANT?	"I want (label)"	-π
9.	(5)	WHAT DO YOU WANT?	"I want (label)"	Sπ
10.	(1)	WHAT IS THAT?	"(label)"	+π
11.	(4)	WHAT DO YOU WANT?	"I want (label)"	-π
12.	(2)	WHAT IS THAT?	"(label)"	-π
13.	(1)	WHAT IS THAT?	"(label)"	-π
14.	(3)	WHAT DO YOU WANT?	"I want (label)"	0π
15.	(4)	WHAT IS THAT?	"(label)"	0π
16.	(2)	WHAT DO YOU WANT?	"I want (label)"	-π
17.	(5)	WHAT IS THAT?	"(label)"	Sπ
18.	(1)	WHAT DO YOU WANT?	"I want (label)"	-π
19.	(3)	WHAT IS THAT?	"(label)"	Sπ
20.	(4)	WHAT DO YOU WANT?	"I want (label)"	Sπ

Record response components as correct (+); incorrect (-); shaped or prompted (S), or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech	+	·	-	S	0
Score	4	–	8	5	3
Percent	20	0	40	25	15

Speech	+	-	S	0

Acceptability	+	0

Signing

Figure 88

Scoring Form for Step 9 (Phase 1)

Type 2

Student Joe Trainer Judy

Circle Speech Level: [✓ A] B C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items: 1) bubbles 2) cookie 3) candy 4) comb 5) car

a: WHAT IS THAT? "(label)"
b: WHAT DO YOU WANT? "I want (label)"

NUMBER CORRECT	STIMULUS PRESENTATION	RESPONSES												
20	a-2	-π	π	π	π	π	π	π	π	π	π	π	π	π
19	b-5	-π	π	π	π	π	π	π	π	π	π	π	π	π
18	b-1	-π	π	π	π	π	π	π	π	π	π	π	π	π
17	a-3	+π	π	π	π	π	π	π	π	π	π	π	π	π
16	a-5	0π	π	π	π	π	π	π	π	π	π	π	π	π
15	b-2	-π	π	π	π	π	π	π	π	π	π	π	π	π
14	a-4	Sπ	π	π	π	π	π	π	π	π	π	π	π	π
13	b-3	-π	π	π	π	π	π	π	π	π	π	π	π	π
12	b-5	-π	π	π	π	π	π	π	π	π	π	π	π	π
11	a-1	Sπ	π	π	π	π	π	π	π	π	π	π	π	π
10	b-4	-π	π	π	π	π	π	π	π	π	π	π	π	π
9	a-2	0π	π	π	π	π	π	π	π	π	π	π	π	π
8	a-1	0π	π	π	π	π	π	π	π	π	π	π	π	π
7	b-3	+π	π	π	π	π	π	π	π	π	π	π	π	π
6	b-4	+π	π	π	π	π	π	π	π	π	π	π	π	π
5	b-2	-π	π	π	π	π	π	π	π	π	π	π	π	π
4	a-4	Sπ	π	π	π	π	π	π	π	π	π	π	π	π
3	b-1	-π	π	π	π	π	π	π	π	π	π	π	π	π
2	a-3	-π	π	π	π	π	π	π	π	π	π	π	π	π
1	a-5	+π	π	π	π	π	π	π	π	π	π	π	π	π
0		X	X	X	X	X	X	X	X	X	X	X	X	X
	DATE	8/4												

COMMENTS:

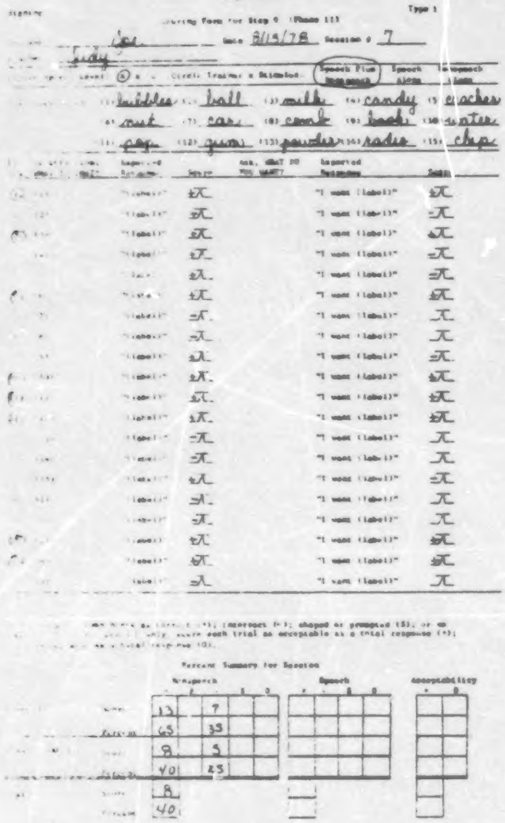


Figure 89

Signing

Type 1

Scoring Form for Step 9 (Phase II)

Date 8/15/78 Session # 7

Joe

Judy

Level: (A) B C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

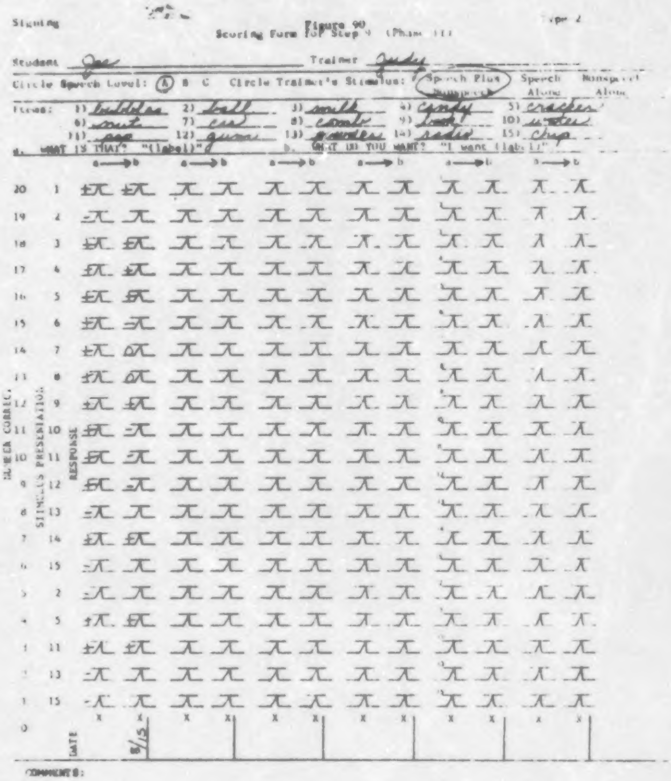
(1) bubbles	(2) ball	(3) milk	(4) candy	(5) cracker
(6) nut	(7) car	(8) comb	(9) book	(10) water
(11) pop	(12) gum	(13) powder	(14) radio	(15) chip

Expected Response	Score	Ask, WHAT DO YOU WANT?	Expected Response	Score
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	
"(label)"			"I want (label)"	

... as correct (+); incorrect (−); shaped or prompted (S); or ... only, score each trial as acceptable as a total response (+); ... as a total response (0).

Percent Summary for Session

	Nonspeech +	Nonspeech −	Nonspeech S	Nonspeech 0	Speech +	Speech −	Speech S	Speech 0	Acceptability +	Acceptability 0
Score	13		7							
Percent	65		35							
Score	8		5							
Percent	40		25							
Score	8									
Percent	40									



Signing

Figure 90

Type 2

Scoring Form for Step 9 (Phase II)

Student Joe Trainer Judy

Circle Speech Level: (A) B C Circle Trainer's Stimulus: [✓ Speech Plus Nonspeech] Speech Alone Nonspeech Alone

Items:	1) bubbles	2) ball	3) milk	4) candy	5) cracker
	6) nut	7) car	8) comb	9) book	10) water
	11) pop	12) gum	13) powder	14) radio	15) chip

a. WHAT IS THAT? "(label)" b. WHAT DO YOU WANT? "I want (label)"

NUMBER CORRECT
STIMULUS PRESENTATION
RESPONSE
a → b
DATE
8/15

NUMBER CORRECT	STIMULUS PRESENTATION
20	1
19	2
18	3
17	4
16	5
15	6
14	7
13	8
12	9
11	10
10	11
9	12
8	13
7	14
6	15
5	2
4	5
3	11
2	13
1	15
0	

COMMENTS:

Signing

Figure 91

Summary Form for Step 9

Speech Level: A Trainer's Stimulus: speech + sign

Student Joe Trainer Judy

Date Training Started ____________ Date Training Ended: ____________ Total Sessions to Criterion: 9

Percent Correct Responses Across Sessions

"I want (label)"
or "(label)"

Session #	1	2	3	4	5	6	7	8	9										Speech Approximations
Phase I	20	35	25	55	70	80													
Phase II Total							40	75	100										
Date	8/1	[illegible]	8/8	8/11	8/12	8/14	8/15	8/18	8/19										

"I want (label)"
or "(label)"

Session #																			Speech Approximations
Phase I																			
Phase II Total																			
Date																			

(Circled percentages represent criterion based on 12 consecutive correct responses.)

APPENDIX A

Percent Conversion Tables

Percent Conversion Tables for 12-, 20-, 30-, 32-, 36-, 40- and 64- Trial Sessions

The following tables are presented to assist you in rapidly and accurately identifying scores in training sessions which include total trials not given in Appendix B of the original manual.

1. Find the percent conversion table which has the total number of trials for the Skill Test or training session.
2. Identify in the left hand column the score (number) for each response category, i.e., correct (+); incorrect (-); shape (S); no-response (NR); or unintelligible (0). In some cases total scores will be identified, as explained in the instruction section for some steps.
3. Locate the percent for each response category directly beside the score and enter on the Skill Test Scoring Form or the Training Session Scoring Form.
4. Remember that the conversion tables are applicable only for total trial sessions and generally cannot be used for sessions in which the 12 correct (intelligible) responses in a row criterion was met. In the latter case percents must be computed by hand. This formula is score, divided by trials, multiplied by 100.

PERCENT CONVERSION TABLE FOR 12-TRIAL SESSION

Score	Percent
1	0
2	8
3	25
4	33
5	42
6	50
7	58
8	67
9	75
- - - - - -	- - - - - - Criterion
10	83
11	92
12	100

PERCENT CONVERSION TABLE FOR 20-TRIAL SESSION

Score	Percent	Score	Percent
1	5	11	55
2	10	12	60
3	15	13	65
4	20	14	70
5	25	15	75
		- - - - - - - -	- - - - - - - - Criterion
6	30	16	80
7	35	17	85
8	40	18	90
9	45	19	95
10	50	20	100

PERCENT CONVERSION TABLE FOR 30-TRIAL SESSION

Score	Percent	Score	Percent
1	3	16	53
2	7	17	57
3	10	18	60
4	13	19	63
5	17	20	67
6	20	21	70
7	23	22	73
8	27	23	77
		- - - - - -	- - - - -Criterion
9	30	24	80
10	33	25	83
11	37	26	87
12	40	27	90
13	43	28	93
14	47	29	97
15	50	30	100

PERCENT CONVERSION TABLE FOR 32-TRIAL SESSION

Score	Percent	Score	Percent	
1	3	17	53	
2	6	18	56	
3	9	19	59	
4	12	20	62	
5	16	21	66	
6	19	22	69	
7	22	23	72	
8	25	24	75	
9	28	25	78	- - - - Criterion
10	31	26	81	
11	34	27	84	
12	38	28	88	
13	41	29	91	
14	44	30	94	
15	47	31	97	
16	50	32	100	

PERCENT CONVERSION TABLE FOR 36-TRIAL SESSION

Score	Percent	Score	Percent
1	3	19	53
2	5	20	56
3	8	21	58
4	11	22	61
5	14	23	64
6	17	24	67
7	19	25	69
8	22	26	72
9	25	27	75
10	28	28	78
		- - - - - -	- - - - - - Criterion
11	31	29	80
12	33	30	83
13	36	31	86
14	39	32	89
15	42	33	92
16	44	34	94
17	47	35	97
18	50	36	100

PERCENT CONVERSION TABLE FOR 40-TRIAL SESSION

Score	Percent	Score	Percent	
1	3	21	53	
2	55	22	55	
3	8	23	58	
4	10	24	60	
5	13	25	63	
6	15	26	65	
7	18	272	68	
8	20	28	70	
9	23	29	73	
10	25	30	75	
11	28	31	78	
12	30	32	80	Criterion
13	33	33	83	
14	35	34	85	
15	38	35	88	
16	40	36	90	
17	43	37	93	
18	45	38	95	
19	48	39	98	
20	50	40	100	

PERCENT CONVERSION TABLE FOR 64-TRIAL SESSION

Score	Percent	Score	Percent	Score	Percent	Score	Percent
1	2	17	26	33	52	49	77
2	3	18	28	34	53	50	78
3	5	19	30	35	55	51	79
						- - - -	- - -Criterion
4	6	20	31	36	56	52	81
5	8	21	33	37	58	53	83
6	9	22	34	38	59	54	84
7	11	23	36	39	61	55	86
8	12	24	38	40	62	56	88
9	14	25	39	41	64	57	89
10	16	26	41	42	66	58	91
11	17	27	42	43	67	59	92
12	19	28	44	44	69	60	94
13	20	29	45	45	70	61	95
14	22	30	47	46	72	62	97
15	23	31	48	47	73	63	98
16	25	32	50	48	75	64	100

APPENDIX B: SUGGESTIONS FOR GRAPHING DATA FOR THIS PROGRAM

Graphs of your student's progress in this program will be important aides to you as you evaluate the success of the training, and determine necessary changes. The original program from which this manual is adapted (Functional Speech and Language Training for the Severely Handicapped, Part 1) includes an appendix (pages 88-93) which will assist you in graphing the data if this is a new experience. However, graphs for the signing program need to include the three parts of each step. A graph for parts of Step 1 of the signing program might look like Figure . Notice that different graph symbols are used to show the training data from the three parts of the Step; i.e., speech and sign, speech alone, and sign alone. If these data indicated training of a Level A student, the only (+) sign scores would be graphed. For Level B students, graph only (+) sign scores, omitting all (*) scores. Graph only the (+) acceptability scores for Level C students.

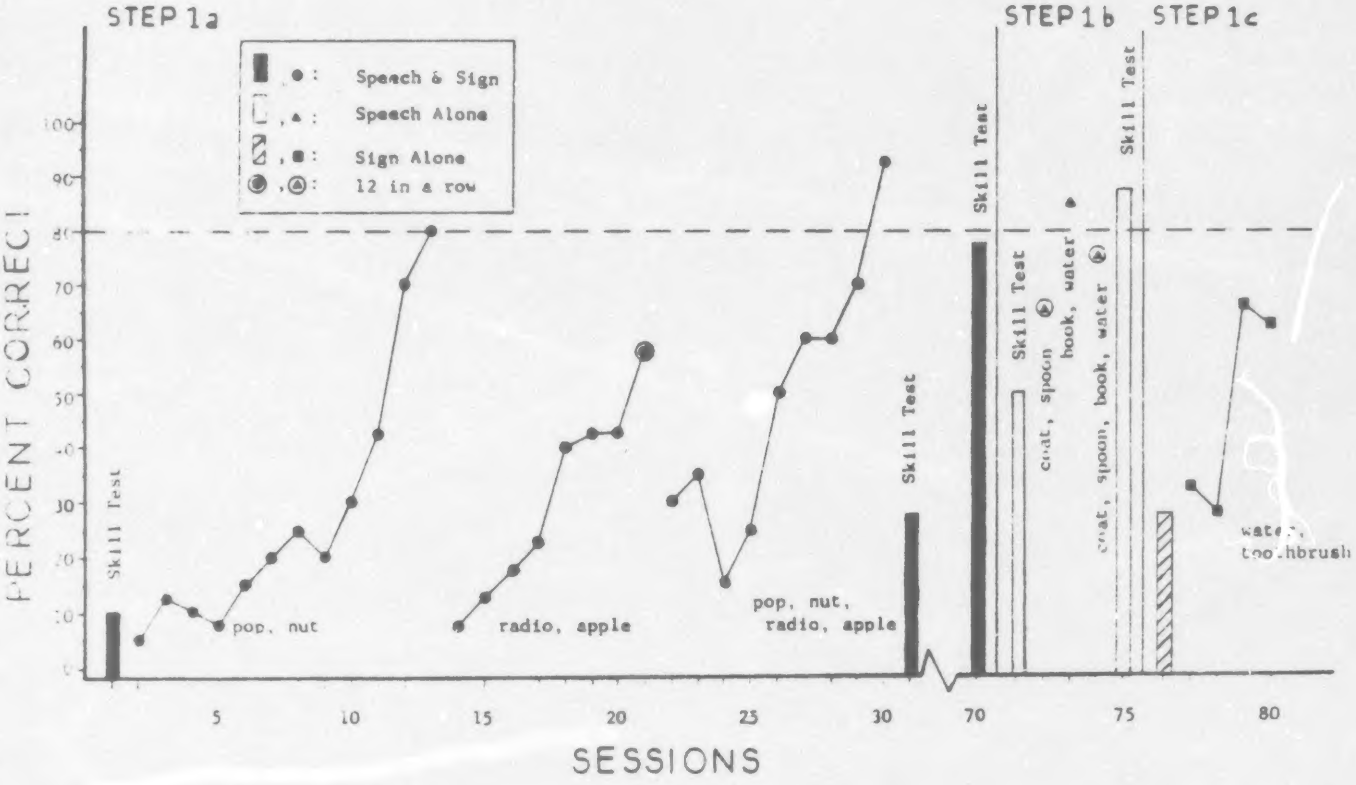


Figure 1B: Example Graph for Step 1 Indicating Some of the First and Final Sessions' Data

Handout to accompany the Total Communication Project training video tape entitled

A CHOICE WITH SEVERELY MULTIPLY HANDICAPPED
BASIC MANUAL SIGNS

Total Viewing Time: 40 Minutes

The signs presented on this tape may be used with the programs entitled Functional Communication Board Training and Functional Sign Training Available from Lois Waldo, Kansas Neurological Institute, 3107 West 21st Street Topeka, Kansas 66604.

The signs were adapted from the Functional Speech and Language Training program, written by Doug Guess, Wayne Sailor, and Donald Baer, and available from H & H Enterprises, Box 3342, Lawrence, Kansas 66044.

The purpose of this video tape is to teach the viewer a basic vocabulary of 47 manual signs which are useful in basic communication training.

The signing system demonstrated in this tape is called Signing Exact English. The manual presenting these signs is entitled Signing Exact English and is available from the National Association of the Deaf, 814 Thayer Avenue, Silver Spring, Maryland 20910.

Watch the tape closely, learn to make the sign, then learn to recognize the sign when made by another person.

SIGNS NEEDED TO TEACH EXPRESSIVE NOUN LABELING

What: Index fingertip brushes down across left fingers.

Is: I on chin moves straight forward.

That: L-and-i hand placed on left palm.

This: Palm-down Y drops on palm of left hand.

It: Tip of I touches palm of left hand.

It's: Tip of I touches palm of left hand; palm-out S twists inward.

Ball: Claw-hands form ball-shape.

Cookie: Fingertips touch palm, twist and touch again.

Candy: Twist hand, index finger on cheek.

Shoe: Bump together S-hands twice.

Brush: Brush top of hand with back of fingers several times.

Coat: A-hands once down on lapels.

Pop: Put 9 inside of S. then slap S.

Sentences you can now make:

What is that?
That is shoe.
Is that candy?
What this?
This is cookie.
It is pop.
What is it?

Practice:
Learn to make the sign yourself. Have someone interpret your signs. Watch your partner sign.

SIGNS NEEDED TO TEACH RECEPTIVE NOUN LABELING

Review the signs for object labels provided in the previous section.

Show: Index on palm; both move forward.

Give: Palm-in flat-O's near body turn outwards to palm-up.

Me: Index points to and touches chest.

Sentences you can now make:

Show me brush.
Give me coat.
Show me what it is.

Practice

SIGNS NEEDED TO TEACH REQUESTS FOR OBJECTS

Review the signs for object labels and the sign for "what" shown in earlier sections.

Want: Pull 5's back to claws toward body.

Do: Palm-down C-hands move side-to-side.

You: Index points at person addressed.

I: I-hand touches chest.

Sentences you can now make:

What want?
What do you want?
Do you want it?
I want that.
You show me ball.

Practice

SIGNS NEEDED TO TEACH A SIMPLE QUESTION

Review the signs for "what", "'s", "it", "is", "that", "this", "me", and "you".

Ask: Palms of hands together, arc slightly toward body.

Sentences you can now make:
"Ask me what this is."
"You ask what it is."

Practice

SIGNS NEEDED TO TEACH "YES"/"NO"

Review the signs for "what", "is", "that" and for the object labels taught earlier in the tape.

A: Palm-out A moves slightly right.

Yes: Nod Y-hand.

No: First two fingers close onto thumb.

Sentences you can now make:
"Yes, I want a brush."
"No, give me candy."

Practice

SIGNS NEEDED TO PRAISE STUDENTS:

Good: Palm-in fingers on chin drop to palm of left hand.

Better: Slide hand off chin into A.

Girl: Thumb of A-hand moves down jawline.

Boy: Touch 4 fingers to thumb several times near temple.

Talk: Index fingers move alternately to and from lips.

Sign: Palm-out indexes circle alternately and vertically.

Work: Palm-out S arcs from side-to-side, hitting back of S.

Terrific: Palm-out T's make small outward circles, then flat palm-out hands push forward slightly.

-ing: I-hand twists in slight downward arc to right.

Sentences you can now make:

That's a good sign.
Better talking.
Good work.
That's better.
Good boy.

SIGNS NEEDED TO CORRECT STUDENTS:

Wrong: Palm-in Y on chin.

Try: T-hands, palms facing each other, move forward with slight arc.

Again: Strike heel of hand with bent fingertips.

Pay: Middle finger of P on palm; flip up and out.

Attention: Vertical parallel palms drop to point forward; side of S slides down palm.

Sentences you can now make:

That's wrong.
Try to do better.
Try again.
You pay attention.
Good try.

Practice

SIGNS NEEDED FOR GENERAL BEHAVIORAL CONTROL

Sit: Sit 2 fingers on left U.

Down: Palm-in hand moves down.

Wait: Palm-up right hand behind palm-up left, flutter fingers.

Hand: Draw H-finger across back of hand.

-s: Palm out S.

Ready: R-hands, palm-out, move to the right.

Head: Touch temple, then jaw.

Up: Palm-out U moves up.

Watch: V at eye, twist down and tap on wrist.

Look: Thumb of L at eye; move forward.

Stand: V-fingertips stand on palm.

Sentences you can now make:

> "Ready work?" ("Ready to work?")
> "Watch me sign."
> "I want you to look up."
> "The candy is ready."

Practice

APPENDIX D

Handout to accompany the Total Communication Project's training video tape entitled:

A CHOICE WITH SEVERELY MULTIPLY HANDICAPPED: BEHAVIORAL TECHNIQUES WITH NONSPEECH TRAINING

Total tape viewing time: 30 minutes

The behavioral techniques discussed on this tape may be used with the Functional Communication Board Training or the Functional Sign Training programs available from Lois Waldo, Kansas Neurological Institute, 3107 West 21st Street, Topeka, Kansas 66604.

These programs were adapted from a program entitled Functional Speech and Language Training for the Severely Handicapped written by Doug Guess, Wayne Sailor, and Donald Baer, and available from H & H Enterprises, Box 3342, Lawrence, Kansas 66044.

The behavioral techniques discussed in this tape present each training trial as a set of antecedent events followed by responses and concluded by the application of a consequence.

ANTECEDENT EVENTS

These events are any behaviors or circumstances which occur before the student is expected to respond.

Important antecedent events include the student's attending behaviors and the trainer's stimulus presentation.

During nonspeech training it is very important for the students to have their hands quiet before each trial.

The trainer's stimulus presentation is the question or instruction which cues the student that you want a response.

Present the stimuli in a normal voice loudness, pitch and rate.

Present the stimuli only once, then give the student a chance to respond.

RESPONSES

These are students' behaviors which occur after the trainer's stimulus.

Students may give perfect responses, partial responses, wrong responses, or they may not respond at all.

The type of response the student gives will determine the type of consequence the trainer will use.

CONSEQUENCES

Consequences are applied after a student's response.

Consequences may increase a good response, improve partial responses, or decrease incorrect responses.

Increase correct or partial responses by delivering reinforcers.

A reinforcer is any event which, when given immediately after a response, increases the probability that the response will occur again.

Improve partial responses by "shaping" the behavior.

Shaping is the procedure of reinforcing partially correct responses which are better than those used in the past.

Elicit new behaviors by "prompting" the response.

Prompting involves providing the students with extra cues, temporarily, to help them initiate a behavior.

Prompts should never be used without an active attempt to fade them as quickly as possible.

Decrease incorrect responses by using some type of correction procedure.

The correction procedure used in this program involves showing the students the correct response or helping them through the correct response and then immediately giving them a chance to use the corrected response.

PITFALLS

Avoid providing too many prompts before giving the student a chance to respond.

Avoid providing inadvertent visual cues.

Always give reinforcement immediately following an acceptable response.

Be careful to ignore inappropriate behaviors during training.

TROUBLE SHOOTING

Rely on your training data and graphs to provide you with information for pinpointing problems in your training.

Decreasing or plateaued graphs of correct responding indicate something needs to be changed in training.

Some common problems are: poor attending, weak reinforcer, illness, or drowsiness.

Handout to accompany the Total Communication Project training video tape entitled

A CHOICE WITH SEVERELY MULTIPLY HANDICAPPED TEACHING SPEECH WITH COMMUNICATION BOARDS AND SIGNING

Total Viewing Time: 40 minutes

The procedures presented on this tape may be used with the programs entitled Functional Communication Board Training and Functional Sign Training Available from Lois Waldo, Kansas Neurological Institute, 3107 West 21st Street, Topeka, Kansas 66604.

These programs were adapted from the Functional Speech and Language Training program, written by Doug Guess, Wayne Sailor, and Donald Baer, and available from H & H Enterprises, Box 3342 , Lawrence, Kansas 66044.

The purpose of this tape is to teach the viewer to use a particular recording and contingency system with the students who have limited speech and are signing or using a board.

"TOTAL COMMUNICATION"

When communication attempts emphasize added visual, auditory, and tactile cues, this is known as "total communication".

LEVELS OF SPEECH SKILLS FOR VOCALLY LIMITED STUDENTS:

Level A: Those who rarely, if ever, vocalize.

Level B: Those who make sounds but tend to use syllables, not words.

Level C: Those who try to talk in words but who are very difficult to understand.

DECIDING PLACEMENT OF THE STUDENTS IN THE LEVELS:

Observe the student interacting in several environments.
Talk to persons familiar with the student.
Determine if the student ever vocalizes spontaneously.
Determine how frequent and varied the vocalizations are.
Consider the student's age.
Consider the student's hearing acuity.

GUIDELINES ON WHICH THE SYSTEM IS BASED:

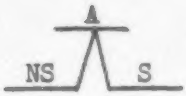
Any kind of vocalizations are to be encouraged even if they don't aid the intelligibility of the response. For a student in Level B, a vocalization may signal to a listener that a communication attempt is being made. This is the main function of speech at this level.

All responses in the Levels are reinforced as a unit. This is especially important in Level C, where the response is scored correct or incorrect depending on the combination of speech plus the accompanying sign or point.

DATA COLLECTION

For data collection purposes, a special scoring grid is used. One grid is used for recording the scores for each trial. The bottom left area of the grid (see below) is used to record the nonspeech response (NS). The bottom right area of the grid is used to record the speech response accompanying the nonspeech response (S). The upper portion of the grid is used to record the responses's acceptability as a total unit (A).

Scoring Grid:



LEVEL A: RARELY VOCALIZES

In this level, the training goal is to establish functional communication with only the nonspeech mode, that is, either with signing or a communication board.

The correct nonspeech responses are the only ones counted toward criterion for the language goals.

Correct nonspeech responses receive a (+).
Approximations or prompted responses are scored as (S).
Incorrect responses are indicated as (-).
Write a (O) if the student did not answer or respond.

Only the nonspeech responses are recorded in this Level.

Practice Scoring Grids:

LEVEL B: ROUTINELY VOCALIZES

In this level, the training goal is to encourage the student to vocalize each time they sign or point, but as in Level A, only the nonspeech responses count toward criterion for the language training.

The student receives a (+) for perfect articulation of a word. This score is not often used in Level B. The most frequently used speech score for this Level is (S). It is recorded for speech approximations or prompted speech. A (-) is for incorrect or conflicting responses. For students with very gross vocalizations, there would be no incorrect speech responses.

Practice Scoring Grids:

LEVEL C: APPROXIMATES SPOKEN WORDS

The Level C training goal is to establish functional speech skills by supporting the speech with some type of nonspeech response.

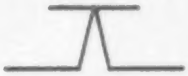
This Level is only used with signing students

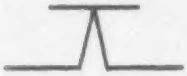
The only responses which count toward criterion are those in which the speech and nonspeech (sign) combine to form a unit that a novice listener would understand out of context.

The nonspeech and speech are scored as before on the grids with the same definitions as given in Levels A and B.

The top of the grid is for the "acceptability" score. The acceptability score indicates whether or not both the speech and non speech responses occurred, and whether or not the response unit was understood.

Practice Scoring Grids:





BLANK FORMS

(Provided for duplication and use in training)

Board
Signing

Skill Test Scoring Form for Step 1

Student ______________________________ Date ____________ Session # ________

Trainer ______________________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

In blanks 6-16 list the 16 items that are used in Step 1; then list them again (not in the same order) in blanks 17-32.

	Item	Score		Item	Score
1.		Λ	17.		Λ
2.		Λ	18.		Λ
3.		Λ	19.		Λ
4.		Λ	20.		Λ
5.		Λ	21.		Λ
6.		Λ	22.		Λ
7.		Λ	23.		Λ
8.		Λ	24.		Λ
9.		Λ	25.		Λ
10.		Λ	26.		Λ
11.		Λ	27.		Λ
12.		Λ	28.		Λ
13.		Λ	29.		Λ
14.		Λ	30.		Λ
15.		Λ	31.		Λ
16.		Λ	32.		Λ

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	/	-	S	0
Score					
Percent					

Speech

	+	-	S	0
Score				
Percent				

Acceptability

	+	0
Score		
Percent		

Board
Signing

Type 1

Scoring Form for Step 1

Student ________________________________ Date __________________ Session # ________

Trainer ________________________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech / Speech Alone / Nonspeech Alone

---

This scoring form can be used for either the one-pair or two pair presentations described in Step 1 training procedures. For training pairs of items, assign numbers (1) and (3) to the first item (for a total of 32 trials); assign numbers (2) and (4) to the second item in the pair (for the remaining 32 trials). When training all four items, assign each to a single number (16 trials each).

List Items Used: (1) ____________ (2) ____________ (3) ____________ (4) ____________

1. (1) _/_
2. (3) _/_
3. (2) _/_
4. (4) _/_
5. (1) _/_
6. (1) _/_
7. (2) _/_
8. (3) _/_
9. (4) _/_
10. (2) _/_
11. (1) _/_
12. (4) _/_
13. (3) _/_
14. (2) _/_
15. (4) _/_
16. (3) _/_
17. (4) _/_
18. (2) _/_
19. (3) _/_
20. (1) _/_
21. (4) _/_
22. (4) _/_
23. (1) _/_
24. (2) _/_
25. (3) _/_
26. (4) _/_
27. (2) _/_
28. (1) _/_
29. (1) _/_
30. (3) _/_
31. (2) _/_
32. (3) _/_
33. (1) _/_
34. (4) _/_
35. (2) _/_
36. (2) _/_
37. (3) _/_
38. (4) _/_
39. (3) _/_
40. (1) _/_
41. (3) _/_
42. (2) _/_
43. (4) _/_
44. (1) _/_
45. (2) _/_
46. (1) _/_
47. (3) _/_
48. (4) _/_
49. (3) _/_
50. (2) _/_
51. (4) _/_
52. (1) _/_
53. (3) _/_
54. (2) _/_
55. (3) _/_
56. (1) _/_
57. (4) _/_
58. (2) _/_
59. (4) _/_
60. (1) _/_
61. (2) _/_
62. (3) _/_
63. (1) _/_
64. (4) _/_

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

	Nonspeech					Speech				Acceptability	
	+	~~+~~	-	S	0	+	-	S	0	+	0
Score											
Percent											

Board
Signing

Type 2

Scoring Form for Step 1

Student ______________________________ Trainer ______________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Items: 1) ____________ 2) ____________ 3) ____________ 4) ____________

a: WHAT'S THAT? "label" Two or Four Items

NUMBER CORRECT	STIMULUS PRESENTATION	RESPONSES												
20	1	⊼	⊼	⊼	⊼	⊼	1⊼	⊼	⊼	⊼	⊼	⊼	⊼	1⊼
19	2	⊼	⊼	⊼	⊼	⊼	2⊼	⊼	⊼	⊼	⊼	⊼	⊼	2⊼
18	4	⊼	⊼	⊼	⊼	⊼	4⊼	⊼	⊼	⊼	⊼	⊼	⊼	4⊼
17	3	⊼	⊼	⊼	⊼	⊼	3⊼	⊼	⊼	⊼	⊼	⊼	⊼	3⊼
16	2	⊼	⊼	⊼	⊼	⊼	2⊼	⊼	⊼	⊼	⊼	⊼	⊼	2⊼
15	3	⊼	⊼	⊼	⊼	⊼	3⊼	⊼	⊼	⊼	⊼	⊼	⊼	3⊼
14	1	⊼	⊼	⊼	⊼	⊼	1⊼	⊼	⊼	⊼	⊼	⊼	⊼	1⊼
13	4	⊼	⊼	⊼	⊼	⊼	4⊼	⊼	⊼	⊼	⊼	⊼	⊼	4⊼
12	3	⊼	⊼	⊼	⊼	⊼	3⊼	⊼	⊼	⊼	⊼	⊼	⊼	3⊼
11	1	⊼	⊼	⊼	⊼	⊼	1⊼	⊼	⊼	⊼	⊼	⊼	⊼	1⊼
10	4	⊼	⊼	⊼	⊼	⊼	4⊼	⊼	⊼	⊼	⊼	⊼	⊼	4⊼
9	2	⊼	⊼	⊼	⊼	⊼	2⊼	⊼	⊼	⊼	⊼	⊼	⊼	2⊼
8	2	⊼	⊼	⊼	⊼	⊼	2⊼	⊼	⊼	⊼	⊼	⊼	⊼	2⊼
7	3	⊼	⊼	⊼	⊼	⊼	3⊼	⊼	⊼	⊼	⊼	⊼	⊼	3⊼
6	3	⊼	⊼	⊼	⊼	⊼	3⊼	⊼	⊼	⊼	⊼	⊼	⊼	3⊼
5	4	⊼	⊼	⊼	⊼	⊼	4⊼	⊼	⊼	⊼	⊼	⊼	⊼	4⊼
4	1	⊼	⊼	⊼	⊼	⊼	1⊼	⊼	⊼	⊼	⊼	⊼	⊼	1⊼
3	2	⊼	⊼	⊼	⊼	⊼	2⊼	⊼	⊼	⊼	⊼	⊼	⊼	2⊼
2	4	⊼	⊼	⊼	⊼	⊼	4⊼	⊼	⊼	⊼	⊼	⊼	⊼	4⊼
1	1	⊼	⊼	⊼	⊼	⊼	1⊼	⊼	⊼	⊼	⊼	⊼	⊼	1⊼
0		X	X	X	X	X	X	X	X	X	X	X	X	X
	DATE													

COMMENTS:

Board
Signing

Summary Form for Step 1

Speech Level: ____________ Trainer's Stimulus: ________________________

Student ________________________________ Trainer ________________________________

Date Training Started ________________ Date Training Ended ________________ Total Sessions to Criterion ________

Percent Correct Responses Across Sessions

Items	Session #																					Speech Approximations
1( ) & 2( )																						
3( ) & 4( )																						
1,2,3,4																						
5( ) & 6( )																						
7( ) & 8( )																						
5,6,7,8																						
9( ) & 10( )																						
11( ) & 12( )																						
9,10,11,12																						
13( ) & 14( )																						
15( ) & 16( )																						
13,14,15,16																						
Skill Test																						
Date																						

Items Used in Training

1. ____________
2. ____________
3. ____________
4. ____________
5. ____________
6. ____________
7. ____________
8. ____________
9. ____________
10. ____________
11. ____________
12. ____________
13. ____________
14. ____________
15. ____________
16. ____________

Board Display

(Circled percentages represent criterion based on 12 consecutive correct responses.)

Skill Test Scoring Form for STEP 2

Student ______________________ Date ______________ Session # ________

Trainer ______________________

Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

---

List the 16 items (twice) that are used for training in STEP 2

	ITEM	SCORE		ITEM	SCORE
1.			1.		
2.			2.		
3.			3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		
8.			8.		
9.			9.		
10.			10.		
11.			11.		
12.			12.		
13.			13.		
14.			14.		
15.			15.		
16.			16.		

Score trials as correct (+); incorrect (-); shape (S); or no response (0).

Summary for Test (based on 32 trials)

	+	-	S	0
Score				
Percent				

Board
Signing

Type 1

Scoring Form for Step 2

Student ______________________ Date ________________ Session # ________

Trainer ______________________

Circle Trainer's Stimulus: Speech Plus Nonspeech | Speech Alone | Nonspeech Alone

This scoring form can be used for either two - or four-item presentations described in Step 2 training procedures. For training pairs of items, assign number 1 and 3 to the first item and assign number 2 and 4 to the second item in the pair. When training all four items, assign each to a single number.

List items used: (1) ________ (2) ________ (3 ________ (4) ________

1. (1) ______	17. (4) ______	33. (1) ______	49. (3) ______
2. (3) ______	18. (2) ______	34. (4) ______	50. (2) ______
3. (2) ______	19. (3) ______	35. (2) ______	51. (4) ______
4. (4) ______	20. (1) ______	36. (4) ______	52. (1) ______
5. (1) ______	21. (4) ______	37. (3) ______	53. (3) ______
6. (1) ______	22. (4) ______	38. (4) ______	54. (2) ______
7. (2) ______	23. (1) ______	39. (3) ______	55. (3) ______
8. (3) ______	24. (2) ______	40. (1) ______	56. (1) ______
9. (4) ______	25. (3) ______	41. (3) ______	57. (4) ______
10. (2) ______	26. (4) ______	42. (2) ______	58. (2) ______
11. (1) ______	27. (2) ______	43. (2) ______	59. (4) ______
12. (4) ______	28. (1) ______	44. (1) ______	60. (1) ______
13. (3) ______	29. (1) ______	45. (2) ______	61. (2) ______
14. (2) ______	30. (3) ______	46. (1) ______	62. (3) ______
15. (4) ______	31. (2) ______	47. (3) ______	63. (1) ______
16. (3) ______	32. (3) ______	48. (4) ______	64. (4) ______

Score trials as correct (+); incorrect (-); shape (S); or no response (0).

Percent Summary for Session

	+	-	S	0
2 items Score or				
4 items Percent				

Board
Signing

Type 2

Scoring Form for Step 2

Student ______________________________ Trainer ______________________________

Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Items: 1) ______________ 2) ______________ 3) ______________ 4) ______________

a: SHOW ME (LABEL) (points to object)

NUMBER CORRECT	STIMULUS PRESENTATION	RESPONSES													
20	1							1							1
19	3							3							3
18	2							2							2
17	4							4							4
16	1							1							1
15	1							1							1
14	2							2							2
13	3							3							3
12	4							4							4
11	2							2							2
10	1							1							1
9	4							4							4
8	3							3							3
7	2							2							2
6	4							4							4
5	3							3							3
4	4							4							4
3	2							2							2
2	3							3							3
1	1							1							1
		X	X	X	X	X	X	X	X	X	X	X	X	X	X
0	DATE														

COMMENTS:

Board
Signing

Summary Form for Step 2

Trainer's Stimulus: ____________________

Student ______________________________ Trainer ______________________________

Date Training Started ____________ Date Training Ended ____________ Total Sessions to Criterion ________

Percent Correct Responses Across Sessions

Items	Session #																																
1( ) & 2( )																																	
3( ) & 4( )																																	
1,2,3, & 4																																	
5( ) & 6( )																																	
7( ) & 8( )																																	
5,6,7, & 8																																	
9( ) & 10( )																																	
11( ) & 12( )																																	
9,10,11, & 12																																	
13( ) & 14( )																																	
15( ) & 16( )																																	
13,14,15, & 16																																	
Skill Test																																	
Date																																	

(Circled percentages represent criterion based on 12 consecutive correct responses.)

Signing Type 1

Scoring Form for Step 3 (Phase 1)

Student ______________________ Date ______________ Session # ________

Trainer ______________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

List Items Used:

(1)__________ (2)__________ (3)__________ (4)__________ (5)__________

(6)__________ (7)__________ (8)__________ (9)__________ (10)__________

Present this item: Ask, WHAT WANT?	Expected Response: "want (label)" (Score)	Present this item: Ask, WHAT WANT?	Expected Response: "want (label)" (Score)	Present this item: Ask, WHAT WANT?	Expected Response: "want (label)" (Score)
1. (1)	_/_	11. (1)	_/_	21. (1)	_/_
2. (2)	_/_	12. (2)	_/_	22. (2)	_/_
3. (3)	_/_	13. (3)	_/_	23. (3)	_/_
4. (4)	_/_	14. (4)	_/_	24. (4)	_/_
5. (5)	_/_	15. (5)	_/_	25. (5)	_/_
6. (6)	_/_	16. (6)	_/_	26. (6)	_/_
7. (7)	_/_	17. (7)	_/_	27. (7)	_/_
8. (8)	_/_	18. (8)	_/_	28. (8)	_/_
9. (9)	_/_	19. (9)	_/_	29. (9)	_/_
10. (10)	_/_	20. (10)	_/_	30. (10)	_/_

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	≠	-	S	0
Score					
Percent					

Speech

	+	-	S	0
Score				
Percent				

Acceptability

	+	0
Score		
Percent		

Signing Type 2

Scoring Form for Step 3 (Phase I)

Student ______________________________ Trainer ______________________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Items: 1)__________ 2)__________ 3)__________ 4)__________ 5)__________

6)__________ 7)__________ 8)__________ 9)__________ 10)__________

a) WAHT DO YOU WANT? "want (label)"

NUMBER CORRECT

STIMULUS PRESENTATION

RESPONSES

20	1	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
19	2	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
18	3	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
17	4	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
16	5	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
15	6	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
14	7	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
13	8	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
12	9	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
11	10	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
10	5	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
9	7	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
8	4	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
7	9	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
6	8	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
5	3	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
4	10	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
3	1	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
2	6	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
1	2	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄	⅄
0	DATE	X	X	X	X	X	X	X	X	X	X	X	X	X

COMMENTS:

Signing Type 1

Scoring Form for Step 3 (Phase II)

Student ____________________ Date ______________ Session # __________

Trainer ____________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

List items used: 1)________ 2)________ 3)________ 4)________ 5)________

6)________ 7)________ 8)________ 9)________ 10)________

Display all 10 items, Ask, WHAT WANT?	Expected Response: "want (label)" (Score)	Display all 10 items, Ask, WHAT WANT?	Expected Response: "want (label)" (Score)	Display all 10 items, Ask, WHAT WANT?	Expected Response: "want (label)" (Score)
1.	⊼	11.	⊼	21.	⊼
2.	⊼	12.	⊼	22.	⊼
3.	⊼	13.	⊼	23.	⊼
4.	⊼	14.	⊼	24.	⊼
5.	⊼	15.	⊼	25.	⊼
6.	⊼	16.	⊼	26.	⊼
7.	⊼	17.	⊼	27.	⊼
8.	⊼	18.	⊼	28.	⊼
9.	⊼	19.	⊼	29.	⊼
10.	⊼	20.	⊼	30.	⊼

Record response components as correvt (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	+̸	-	S	0
Score					
Percent					

Speech

	+	-	S	0
Score				
Percent				

Acceptability

	+	0
Score		
Percent		

Signing

Type 2

Scoring Form for Step 3 (Phase II)

Student ______________________________ Trainer ______________________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Items: 1)__________ 2)__________ 3)__________ 4)__________ 5)__________

6)__________ 7)__________ 8)__________ 9)__________ 10)__________

a) WHAT DO YOU WANT? "want (label)"

20	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
19	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
18	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
17	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
16	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
15	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
14	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
13	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
12	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
11	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
10	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
9	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
8	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
7	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
6	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
5	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
4	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
3	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
2	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
1	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
0	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DATE														

COMMENTS:

Signing

Summary Form for Step 3

Speech Level: ______________ Trainer's Stimulus: __________________

Student ____ Trainer ____

Date Training Started ____________ Date Training Ended _____________________ Total Sessions to Criterion ____________

Percent of Correct Responses Across Session

	Session #																
"want (label)"																	Speech Approximations
Phase I																	
Phase II																	
Date	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	

(Circled percentages represent criterion based on 12 consecutive correct responses.)

Signing

Novel Item Selection Scoring Form for Step 4 (Phase I)

Name ______________________________ Date ______________________

Trainer ______________________________

Circle Speech Level: A B C

Item Presented: (Ask, WHAT'S THAT?)	Score	Item Presented: (Ask, WHAT'S THAT?)	Score
* 1. ____________	⊼	*16. ____________	⊼
2. ____________	⊼	17. ____________	⊼
3. ____________	⊼	18. ____________	⊼
4. ____________	⊼	19. ____________	⊼
* 5. ____________	⊼	20. ____________	⊼
6. ____________	⊼	*21. ____________	⊼
7. ____________	⊼	*22. ____________	⊼
* 8. ____________	⊼	23. ____________	⊼
9. ____________	⊼	24. ____________	⊼
10. ____________	⊼	*25. ____________	⊼
*11. ____________	⊼	26. ____________	⊼
12. ____________	⊼	27. ____________	⊼
*13. ____________	⊼	*28. ____________	⊼
14. ____________	⊼	29. ____________	⊼
15. ____________	⊼	30 ____________	⊼

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0)

*Previously trained items presented in this trial

List items which the student could not label and on which he or she has not received prior training.

(1)________ (2)________ (3)________ (4)________ (5)________

(6)________ (7)________ (8)________ (9)________ (10)________

(11)________ (12)________ (13)________ (14)________ (15)________

(16)________ (17)________ (18)________ (19)________ (20)________

Signing

Type 1

Scoring Form for Step 4 (Phase II)

Name ______________________ Date __________ Session # ______

Trainer ______________________

Circle Speech Level: A B C

Imitation: "What's that?"

(Score)

1. _Λ_
2. _Λ_
3. _Λ_
4. _Λ_
5. _Λ_
6. _Λ_
7. _Λ_
8. _Λ_
9. _Λ_
10. _Λ_
11. _Λ_
12. _Λ_
13. _Λ_
14. _Λ_
15. _Λ_

Imitation: "What's that?"

(Score)

16. _Λ_
17. _Λ_
18. _Λ_
19. _Λ_
20. _Λ_
21. _Λ_
22. _Λ_
23. _Λ_
24. _Λ_
25. _Λ_
26. _Λ_
27. _Λ_
28. _Λ_
29. _Λ_
30. _Λ_

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	+	-	S	0
Score					
Percent					

Speech

+	-	S	0

Acceptability

+	0

Signing

Type 2

Scoring Form for Step 4 (Phase II)

Student ______________________________ Trainer ______________________________

Circle Speech Level: A B C

a: DO THIS, WHAT'S THAT? "what's that?"

NUMBER CORRECT

RESPONSES

20	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
19	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
18	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
17	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
16	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
15	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
14	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
13	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
12	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
11	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
10	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
9	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
8	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
7	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
6	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
5	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
4	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
3	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
2	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
1	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
0	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ	Λ
	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DATE														

COMMENTS:

Signing   Type 1

Scoring Form for Step 4 (Phase III)

Student ______________________ Date ______________ Session # __________

Trainer ______________________

Circle Speech Level: A B C

List "novel" items used:

(1)__________ (2)__________ (3)__________ (4)__________ (5)__________

__________ __________ __________ __________ __________

(6)__________ (7)__________ (8)__________ (9)__________ (10)__________

__________ __________ __________ __________ __________

Present this Item	Expected Response: "What's that?" (Score)	Present this Item	Expected Response: "What's that?" (Score)
1. (3)	_Λ_	16. (10)	_Λ_
2. (8)	_Λ_	17. (4)	_Λ_
3. (1)	_Λ_	18. (7)	_Λ_
4. (6)	_Λ_	19. (1)	_Λ_
5. (2)	_Λ_	20. (5)	_Λ_
6. (2)	_Λ_	21. (2)	_Λ_
7. (10)	_Λ_	22. (8)	_Λ_
8. (7)	_Λ_	23. (9)	_Λ_
9. (3)	_Λ_	24. (3)	_Λ_
10. (10)	_Λ_	25. (7)	_Λ_
11. (5)	_Λ_	26. (1)	_Λ_
12. (9)	_Λ_	27. (4)	_Λ_
13. (2)	_Λ_	28. (6)	_Λ_
14. (6)	_Λ_	29. (9)	_Λ_
15. (4)	_Λ_	30. (8)	_Λ_

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	+	-	S	0
Score					
Percent					

Speech

+	-	S	0

Acceptability

+	0

Signing Type 2

Scoring Form for Step 4 (Phase III)

Student ______________________ Trainer ______________________

Circle Speech Level: A B C

List Novel Items Used:

1) __________ 2) __________ 3) __________ 4) __________ 5) __________

6) __________ 7) __________ 8) __________ 9) __________ 10) __________

a: (Holds item) "What's that?"

NUMBER CORRECT	RESPONSES														
20	3	⋏	⋏	⋏	⋏	⋏	⋏	^{3}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{3}⋏
19	8	⋏	⋏	⋏	⋏	⋏	⋏	^{8}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{8}⋏
18	1	⋏	⋏	⋏	⋏	⋏	⋏	^{1}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{1}⋏
17	6	⋏	⋏	⋏	⋏	⋏	⋏	^{6}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{6}⋏
16	5	⋏	⋏	⋏	⋏	⋏	⋏	^{5}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{5}⋏
15	2	⋏	⋏	⋏	⋏	⋏	⋏	^{2}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{2}⋏
14	10	⋏	⋏	⋏	⋏	⋏	⋏	^{10}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{10}⋏
13	7	⋏	⋏	⋏	⋏	⋏	⋏	^{7}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{7}⋏
12	3	⋏	⋏	⋏	⋏	⋏	⋏	^{3}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{3}⋏
11	8	⋏	⋏	⋏	⋏	⋏	⋏	^{8}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{8}⋏
10	5	⋏	⋏	⋏	⋏	⋏	⋏	^{5}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{5}⋏
9	9	⋏	⋏	⋏	⋏	⋏	⋏	^{9}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{9}⋏
8	2	⋏	⋏	⋏	⋏	⋏	⋏	^{2}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{2}⋏
7	6	⋏	⋏	⋏	⋏	⋏	⋏	^{6}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{6}⋏
6	4	⋏	⋏	⋏	⋏	⋏	⋏	^{4}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{4}⋏
5	10	⋏	⋏	⋏	⋏	⋏	⋏	^{10}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{10}⋏
4	4	⋏	⋏	⋏	⋏	⋏	⋏	^{4}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{4}⋏
3	7	⋏	⋏	⋏	⋏	⋏	⋏	^{7}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{7}⋏
2	1	⋏	⋏	⋏	⋏	⋏	⋏	^{1}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{1}⋏
1	5	⋏	⋏	⋏	⋏	⋏	⋏	^{5}⋏	⋏	⋏	⋏	⋏	⋏	⋏	^{5}⋏
0		X	X	X	X	X	X	X	X	X	X	X	X	X	X
DATE															

COMMENTS:

Signing

Type 1

Scoring Form for Step 5

Student ______________________________ Date ______________ Session # ________

Trainer ______________________________

Circle Speech Level: A B C   Circle Trainer's Stimulus: Speech Plus Nonspeech   Speech Alone   Nonspeech Alone

List Item Used:

Known items (1)________ (2)________ (3)________ (4)________ (5)________ (6)________

Novel items (7)________ (8)________ (9)________ (10)________ (11)________ (12)________

Present this item		Expected Response	Score	Present this item		Expected Response	Score
1.	(3)	(label)	Λ	19.	(5)	(label)	Λ
2.	(12)	"What's that?" or (label)	Λ	20.	(11)	"What's that?" or (label)	Λ
3.	(1)	(label)	Λ	21.	(6)	(label)	Λ
4.	(7)	"What's that?" or (label)	Λ	22.	(1)	(label)	Λ
5.	(6)	(label)	Λ	23.	(8)	"What's that?" or (label)	Λ
6.	(11)	"What's that?" or (label)	Λ	24.	(4)	(label)	Λ
7.	(2)	(label)	Λ	25.	(7)	"What's that?" or (label)	Λ
8.	(10)	"What's that?" or (label)	Λ	26.	(3)	(label)	Λ
9.	(9)	"What's that?" or (label)	Λ	27.	(10)	"What's that?" or (label)	Λ
10.	(8)	"What's that?" or (label)	Λ	28.	(1)	(label)	Λ
11.	(3)	(label)	Λ	29.	(5)	(label)	Λ
12.	(4)	(label)	Λ	30.	(12)	"What's that?" or (label)	Λ
13.	(7)	"What's that?" or (label)	Λ	31.	(8)	"What's that?" or (label)	Λ
14.	(11)	"What's that?" or (label)	Λ	32.	(12)	"What's that?" or (label)	Λ
15.	(2)	(label)	Λ	33.	(9)	"What's that?" or (label)	Λ
16.	(5)	(label)	Λ	34.	(2)	(label)	Λ
17.	(9)	"What's that?" or (label)	Λ	35.	(6)	(label)	Λ
18.	(4)	(label)	Λ	36.	(10)	"What's that?" or (label)	Λ

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response. For Level C only, score each trial as acceptable as a total response (+); or not acceptable as a total response (0).

Percent Summary for Session

		Nonspeech					Speech				Accep.	
		+	+̸	-	S	0	+	-	S	0	+	0
Known items (label)	Score											
	Percent											
Novel items "What's that?" or (label)	Score											
	Percent											
Total	Score											
	Percent											

List novel items (if any) in which a shift was made from asking "What's that?" to a correct item label.

1.

2.

3.

Signing

Type 2

Scoring Form for Step 5

Student ______________________________ Trainer ______________________________

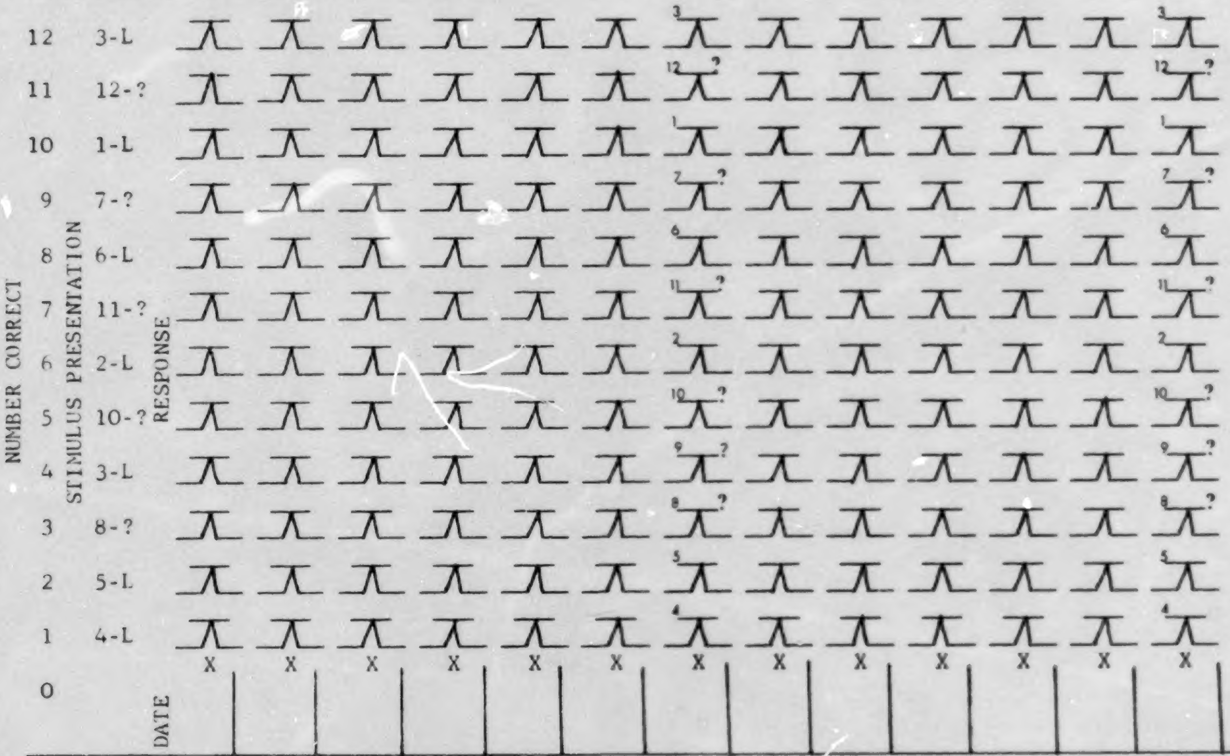
Circle Speech Level: A B C

Known items: 1)________ 2)________ 3)________ 4)________ 5)________ 6)________

Novel items: 7)________ 8)________ 9)________ 10)________ 11)________ 12)________

A: (holds item) ?: "What's that?"* L: "label"

*This may change if student shifts to labeling the item. Make an "X" through the scoring grid to show a shift was made (X).



COMMENTS: (list here novel items if any, in which a shift was made from asking "What's that?" to a correct item label.)

Signing

Summary Form for Step 5
Speech Level: ______

Student ______________________________ Trainer ______________________________

Date Training Started ____________ Date Training Ended ______________ Total Sessions to Criterion ______________

Percent Correct Responses Across Sessions

	Session #																	Speech Approximations
Known Items (label)																		
Novel Items "What's that?" or (label)																		
Total																		
Date	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	

List (if any) previously novel items that the student begins to correctly label (i.e., makes a "shift")

Item:	Session #:	Item:	Session #:
____________	______	____________	______
____________	______	____________	______
____________	______	____________	______

(Circled percentages represent criterion based on 12 consecutive correct responses.)

Signing

Type 1

Scoring Form for Step 6

Student ______________________________ Date ________________ Session # ________

Trainer ______________________________

Circle Speech Level: A B C

Known Items: 1) ____________ 2) ____________ 3) ____________

Novel Items: 4) ____________ 5) ____________ 6) ____________

Show	Expected Response	Score	No* Shift	Shift	Show	Expected Response	Score	No* Shift	Shift
1.(3)	(label)	⋀			16.(5)	"What's that" or (label)	⋀	____	____
2.(4)	"What's that" or (label)	⋀	____	____	17.(6)	"What's that" or (label)	⋀	____	____
3.(3)	(label)	⋀			18.(2)	(label)	⋀		
4.(2)	(label)	⋀			19.(1)	(label)	⋀		
5.(1)	(label)	⋀			20.(2)	(label)	⋀		
6.(3)	(label)	⋀			21.(4)	"What's that" or (label)	⋀	____	____
7.(5)	"What's that" or (label)	⋀	____	____	22.(2)	(label)	⋀		
8.(1)	(label)	⋀			23.(4)	"What's that" or (label)	⋀	____	____
9.(6)	"What's that" or (label)	⋀	____	____	24.(6)	"What's that" or (label)	⋀	____	____
10.(3)	(label)	⋀			25.(5)	"What's that" or (label)	⋀	____	____
11.(6)	"What's that" or (label)	⋀	____	____	26.(1)	(label)	⋀		
12.(6)	"What's that" or (label)	⋀	____	____	27.(5)	"What's that" or (label)	⋀	____	____
13.(2)	(label)	⋀			28.(1)	(label)	⋀		
14.(4)	"What's that" or (label)	⋀	____	____	29.(4)	"What's that" or (label)	⋀	____	____
15.(5)	"What's that" or (label)	⋀	____	____	30.(3)	(label)	⋀		

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total response (+); or not acceptable as a total response (0).

*When presented with novel items the student may ask, "What's that?" in which the no-shift column would be marked (X); or the student may label the item, in which case you would indicate the desired shift was made by marking an (X) in that column.

Summary for Session

Novel Items (list)	No-Shift	Shift
1. ____________	________	____
2. ____________	________	____
3. ____________	________	____
4. ____________	________	____
5. ____________	________	____
6. ____________	________	____

Signing

Type 2

Scoring Form for Step 6

Student ______________________________ Trainer ______________________________

Circle Speech Level: A B C

Known items: 1)______________ 2)______________ 3)______________

______________ ______________ ______________

______________ ______________ ______________

______________ ______________ ______________

Novel items: 4)______________ 5)______________ 6)______________

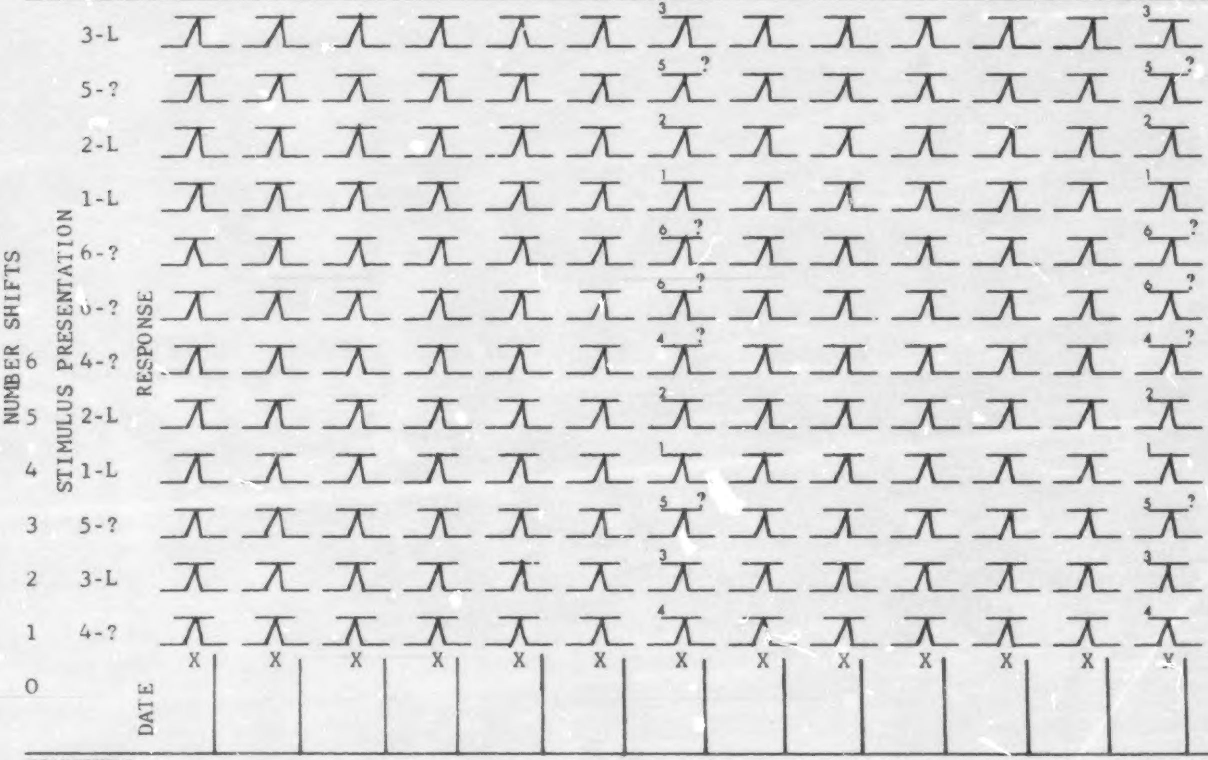
______________ ______________ ______________

______________ ______________ ______________

______________ ______________ ______________

a: (holds item) ?: "What's that?" L: "label"

Make an "X" through the scoring grid if a shift was made (✱).



COMMENTS:

Summary Form for Step 6
Speech Level: ______

Student ______________________________ Trainer ______________________________

Date Training Started ______________ Date Training Ended: ______________ Total Sessions to Criterion: ________

Sessions*

Novel Items (list)	Session #																						Speech Approximations
1.																							
2.																							
3.																							
4.																							
5.																							
6.																							
7.																							
8.																							
9.																							
Date																							

* Record no-shift (NS) if the student does not make the shift from asking "What's that?" to labeling of the item in the session, record (S) if the shift is made. Criterion level for advancing to the next step is a shift within two sessions for each of three novel items.

Board
Signing

SKILL TEST SCORING FORM FOR STEP 7

Student________________________________ Date____________________ Session # _________

Trainer________________________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

The trainer is free to select items which meet the needs of each student, based on the student's ability to label the objects. The items used in trials 1-16 are repeated in randomized order in trials 17-32. If the blank in the SHOW column is followed by (Y), place that same item in the blank in the ASK column to elicit a "yes" answer. If there is an (N) after the blank in the SHOW column, use another of the 16 items in the ASK column to elicit a "no" answer. Each item should have a yes and a no question. Remember that criterion is based on all 32 trials.

SHOW	ASK	SCORE	SHOW	ASK	SCORE
1.______(Y)	IS THIS A______?	_Λ_	17.______(Y)	IS THIS A______?	_Λ_
2.______(N)	IS THIS A______?	_Λ_	18.______(N)	IS THIS A______?	_Λ_
3.______(N)	IS THIS A______?	_Λ_	19.______(N)	IS THIS A______?	_Λ_
4.______(Y)	IS THIS A______?	_Λ_	20.______(Y)	IS THIS A______?	_Λ_
5.______(N)	IS THIS A______?	_Λ_	21.______(N)	IS THIS A______?	_Λ_
6.______(Y)	IS THIS A______?	_Λ_	22.______(Y)	IS THIS A______?	_Λ_
7.______(Y)	IS THIS A______?	_Λ_	23.______(Y)	IS THIS A______?	_Λ_
8.______(Y)	IS THIS A______?	_Λ_	24.______(Y)	IS THIS A______?	_Λ_
9.______(N)	IS THIS A______?	_Λ_	25.______(N)	IS THIS A______?	_Λ_
10.______(Y)	IS THIS A______?	_Λ_	26.______(N)	IS THIS A______?	_Λ_
11.______(N)	IS THIS A______?	_Λ_	27.______(N)	IS THIS A______?	_Λ_
12.______(N)	IS THIS A______?	_Λ_	28.______(Y)	IS THIS A______?	_Λ_
13.______(Y)	IS THIS A______?	_Λ_	29.______(N)	IS THIS A______?	_Λ_
14.______(N)	IS THIS A______?	_Λ_	30.______(Y)	IS THIS A______?	_Λ_
15.______(N)	IS THIS A______?	_Λ_	31.______(N)	IS THIS A______?	_Λ_
16.______(Y)	IS THIS A______?	_Λ_	32.______(Y)	IS THIS A______?	_Λ_

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	[illegible]	-	S	0
Score					
Percent					

Speech

+	-	S	0

Acceptability

+	0

Board
Signing

Type 1

Scoring Form for Step 7 (Phases I and II)

Student ______________________ Date ______________ Session # ______________
Trainer ______________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

List item used if different than the example (ball) on the scoring form: ______________

Circle phase: Phase I: Phase II

	Ask, WHAT IS THIS?	Ask, IS THIS A BALL? (Phase I); IS THIS A _____? (Phase II)		Ask, WHAT IS THIS?	Ask, IS THIS A BALL? (Phase I); IS THIS A _____? (Phase II)
1.	⊼	⊼	17.	⊼	⊼
2.	⊼	⊼	18.	⊼	⊼
3.	⊼	⊼	19.	⊼	⊼
4.	⊼	⊼	20.	⊼	⊼
5.	⊼	⊼	21.	⊼	⊼
6.	⊼	⊼	22.	⊼	⊼
7.	⊼	⊼	23.	⊼	⊼
8.	⊼	⊼	24.	⊼	⊼
9.	⊼	⊼	25.	⊼	⊼
10.	⊼	⊼	26.	⊼	⊼
11.	⊼	⊼	27.	⊼	⊼
12.	⊼	⊼	28.	⊼	⊼
13.	⊼	⊼	29.	⊼	⊼
14.	⊼	⊼	30.	⊼	⊼
15.	⊼	⊼	31.	⊼	⊼
16.	⊼	⊼	32.	⊼	⊼

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (NR). For Level C only, score each trial as acceptable as a total response (+); or not acceptable as a total response (0).

Percent Summary for Session

		Nonspeech					Speech				Acceptability	
		+	+̸	-	S	0	+	-	S	0	+	0
Label ( )	Score											
	Percent											
"Yes" (Phase I)	Score											
"No" (Phase II)	Percent											
Total	Score											
	Percent											

Board
Signing

Type 2

Scoring Form for Step 7 (Phases I and II)

Student ______________________________ Trainer ____________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Circle appropriate phase above.
List item used: __________ a) WHAT IS THIS? "Label" b) IS THIS A (Label)? "yes"(I) "no"(II)

NUMBER CORRECT RESPONSES

	a → b		a → b		a → b		a → b		a → b		a → b		a → b	
20	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
19	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
18	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
17	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
16	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
15	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
14	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
13	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
12	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
11	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
10	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
9	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
8	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
7	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
6	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
5	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
4	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
3	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
2	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
1	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼
	X	X	X	X	X	X	X	X	X	X	X	X	X	X
0														
DATE														

COMMENTS:

Board
Signing

Type I

Scoring Form for Step 7 (Phases III, V, IX, XI, XIII)

Student ______________________ Date ______________ Session # ________

Trainer ______________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Circle appropriate phase and write in item used: Phase III __________; Phase V __________

Phase IX __________; Phase XI __________; Phase XIII __________

On the scoring form (label) refers to the label appropriate to the item displayed, thus requiring a "yes" response; the blank (________)? indicates the substitution of labels which are different from the item displayed, thus requiring a "no" response.

Display Item, Ask WHAT IS THIS ?	Expected Response: "(Label)"	Ask, IS THIS A ...	Expected Response	
1.	⌶	(label)?	"yes"	⌶
2.	⌶	________?	"no"	⌶
3.	⌶	________?	"no"	⌶
4.	⌶	(label)?	"yes"	⌶
5.	⌶	(label)?	"yes"	⌶
6.	⌶	________?	"no"	⌶
7.	⌶	(label)?	"yes"	⌶
8.	⌶	________?	"no"	⌶
9.	⌶	________?	"no"	⌶
10.	⌶	________?	"no"	⌶
11.	⌶	(label)?	"yes"	⌶
12.	⌶	(label)?	"yes"	⌶
13.	⌶	(label)?	"yes"	⌶
14.	⌶	________?	"no"	⌶
15.	⌶	________?	"no"	⌶
16.	⌶	(label)?	"yes"	⌶
17.	⌶	(label)?	"yes"	⌶
18.	⌶	________?	"no"	⌶
19.	⌶	(label)?	"yes"	⌶
20.	⌶	________?	"no"	⌶

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (NR). For Level C only, score each trial as acceptable as a total response (+); or not acceptable as a total response (0).

Percent Summary for Session

		Nonspeech					Speech				Acceptability	
		+	/	-	S	0	+	-	S	0	+	0
Label, ( )	Score											
	Percent											
Yes/No	Score											
	Percent											
Total	Score											
	Percent											

Board
Signing

Type 2

Scoring Form for Step 7 (Phase III,V,IX,XI,XIII)

Student ______________________________ Trainer ____________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Circle appropriate phase above. Item: ____________

a) WHAT IS THIS? L="(label)" b) IS THIS (LABEL)?* Y="yes" N="no"

*LABEL included in this question depends on "Y" or "N" code in the Stimulus column.

NUMBER CORRECT	STIMULATION PRESENTATION	a →	b	a →	b	a →	b	a →	b	a →	b	a →	b
20	L-N	人	人	人	人	人	人	人	N 人	人	人	人	人
19	L-Y	人	人	人	人	人	人	人	人	人	人	人	人
18	L-Y	人	人	人	人	人	人	人	人	人	人	人	人
17	L-N	人	人	人	人	人	人	人	N 人	人	人	人	人
16	L-N	人	人	人	人	人	人	人	N 人	人	人	人	人
15	L-Y	人	人	人	人	人	人	人	人	人	人	人	人
14	L-Y	人	人	人	人	人	人	人	人	人	人	人	人
13	L-N	人	人	人	人	人	人	人	N 人	人	人	人	人
12	L-Y	人	人	人	人	人	人	人	人	人	人	人	人
11	L-N	人	人	人	人	人	人	人	N 人	人	人	人	人
10	L-Y	人	人	人	人	人	人	人	人	人	人	人	人
9	L-N	人	人	人	人	人	人	人	N 人	人	人	人	人
8	L-Y	人	人	人	人	人	人	人	人	人	人	人	人
7	L-N	人	人	人	人	人	人	人	N 人	人	人	人	人
6	L-N	人	人	人	人	人	人	人	N 人	人	人	人	人
5	L-N	人	人	人	人	人	人	人	N 人	人	人	人	人
4	L-Y	人	人	人	人	人	人	人	人	人	人	人	人
3	L-Y	人	人	人	人	人	人	人	人	人	人	人	人
2	L-Y	人	人	人	人	人	人	人	人	人	人	人	人
1	L-N	人	人	人	人	人	人	人	N 人	人	人	人	人
	RESPONSES	X	X	X	X	X	X	X	X	X	X	X	X
0	DATE												

COMMENTS:

Board
Signing

Type 1

Scoring Form for Step 7 (Phases IV and VI)

Student ______________________________ Date _________________ Session # _________
Trainer ______________________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Circle appropriate phase and write in item used Phase IV ______________ Phase VI ________

On the scoring for. (item label) refers to the label appropriate to the item displayed, thus requiring a "yes" response. The blank (______________?) indicates the substitution of labels which are different from the item displayed, thus requiring a "no" response.

Display item, ask IS THIS A	Expected Response	Score	Display item, ask IS THIS A	Expected Response	Score
1. (label) ?	"yes"	⋀	17. (label) ?	"yes"	⋀
2. __________?	"no"	⋀	18. __________?	"no"	⋀
3. __________?	"no"	⋀	19. (label) ?	"yes"	⋀
4. (label) ?	"yes"	⋀	20. __________?	"no"	⋀
5. (label) ?	"yes"	⋀	21. __________?	"yes"	⋀
6. __________?	"no"	⋀	22. __________?	"no"	⋀
7. (label) ?	"yes"	⋀	23. (label) ?	"yes"	⋀
8. __________?	"no"	⋀	24. __________?	"no"	⋀
9. __________?	"no"	⋀	25. __________?	"no"	⋀
10. __________?	"no"	⋀	26. __________?	"no"	⋀
11. (label) ?	"yes"	⋀	27. (label) ?	"yes"	⋀
12. (label) ?	"yes"	⋀	28. (label) ?	"yes"	⋀
13. (label) ?	"yes"	⋀	29. (label) ?	"yes"	⋀
14. __________?	"no"	⋀	30. __________?	"no"	⋀
15. __________?	"no"	⋀	31. (label) ?	"yes"	⋀
16. (label) ?	"yes"	⋀	32. __________?	"no"	⋀

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

	Nonspeech					Speech				Acceptability	
	+	/	-	S	0	+	-	S	0	+	0
ore											
rcent											

Board
Signing

Type 2

Scoring Form for Step 7 (Phases IV and VI)

Student ________________________________ Trainer ____________________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Circle appropriate phase above.

Item: ____________

a) IS THIS A (LABEL)?* Y="yes" N="no"

*LABEL included in this question depends on "Y" or "N" code in the stimulus column.

NUMBER CORRECT

STIMULUS PRESENTATION

RESPONSES

20	N	⋏	⋏	⋏	⋏	⋏	⋏	N⋏	⋏	⋏	⋏	⋏	⋏	⋏	N⋏
19	Y	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏
18	N	⋏	⋏	⋏	⋏	⋏	⋏	N⋏	⋏	⋏	⋏	⋏	⋏	⋏	N⋏
17	Y	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏
16	Y	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏
15	Y	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏
14	N	⋏	⋏	⋏	⋏	⋏	⋏	N⋏	⋏	⋏	⋏	⋏	⋏	⋏	N⋏
13	N	⋏	⋏	⋏	⋏	⋏	⋏	N⋏	⋏	⋏	⋏	⋏	⋏	⋏	N⋏
12	N	⋏	⋏	⋏	⋏	⋏	⋏	N⋏	⋏	⋏	⋏	⋏	⋏	⋏	N⋏
11	Y	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏
10	N	⋏	⋏	⋏	⋏	⋏	⋏	N⋏	⋏	⋏	⋏	⋏	⋏	⋏	N⋏
9	Y	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏
8	N	⋏	⋏	⋏	⋏	⋏	⋏	N⋏	⋏	⋏	⋏	⋏	⋏	⋏	N⋏
7	Y	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏
6	N	⋏	⋏	⋏	⋏	⋏	⋏	N⋏	⋏	⋏	⋏	⋏	⋏	⋏	N⋏
5	Y	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏
4	Y	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏
3	N	⋏	⋏	⋏	⋏	⋏	⋏	N⋏	⋏	⋏	⋏	⋏	⋏	⋏	N⋏
2	N	⋏	⋏	⋏	⋏	⋏	⋏	N⋏	⋏	⋏	⋏	⋏	⋏	⋏	N⋏
1	Y	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏	⋏
		X	X	X	X	X	X	X	X	X	X	X	X	X	X
0	DATE														

COMMENTS:

Board
Signing

Type 1

Scoring Form for Step 7 (Phase VII)

Student: ______________________ Date ____________ Session # __________

Trainer: ______________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Items used: 1) __________ 2) __________ If the space in the third column includes a (1) or (2), use that item label in your question to elicit a "yes" response. If there is a blank in that column, use an item label (from the Skill Test) other than the one shown to elicit a "no" response.

Display this item:		Ask, WHAT IS THIS? Score	Ask, IS THIS A ...	Expected Response	Score
1.	(1)	_Λ_	(1)?	"yes"	_Λ_
2.	(2)	_Λ_	__________?	"no"	_Λ_
3.	(2)	_Λ_	(2)?	"yes"	_Λ_
4.	(1)	_Λ_	__________?	"no"	_Λ_
5.	(1)	_Λ_	__________?	"no"	_Λ_
6.	(2)	_Λ_	(2)?	"yes"	_Λ_
7.	(1)	_Λ_	(1)?	"yes"	_Λ_
8.	(2)	_Λ_	(2)?	"yes"	_Λ_
9.	(2)	_Λ_	__________?	"no"	_Λ_
10.	(1)	_Λ_	__________?	"no"	_Λ_
11.	(1)	_Λ_	__________?	"no"	_Λ_
12.	(1)	_Λ_	(1)?	"yes"	_Λ_
13.	(2)	_Λ_	(2)?	"yes"	_Λ_
14.	(2)	_Λ_	__________?	"no"	_Λ_
15.	(1)	_Λ_	__________?	"no"	_Λ_
16.	(2)	_Λ_	(2)?	"yes"	_Λ_
17.	(1)	_Λ_	(1)?	"yes"	_Λ_
18.	(2)	_Λ_	__________?	"no"	_Λ_
19.	(2)	_Λ_	__________?	"no"	_Λ_
20.	(1)	_Λ_	(1)?	"yes"	_Λ_

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (NR). For Level C only, score each trial as acceptable as a total response (+); or not acceptable as a total response (0).

Percent Summary for Session

		Nonspeech					Speech				Acceptability	
		+	≠	-	S	0	+	-	S	0	+	0
Label ( )	Score											
	Percent											
Yes/No	Score											
	Percent											
Total	Score											
	Percent											

Board
Signing

Type 2

Scoring Form for Step 7 (Phase VII)

Student ______________________________ Trainer ______________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Items: 1) ________________ 2) ________________

a) WHAT IS THIS? b) IS THIS A (LABEL)?*

L: "(Label)" for 1) or 2) Y="yes" N="no"

*LABEL included in this question depends on "Y" or "N" code in the Stimulus column.

NUMBER CORRECT	STIMULUS PRESENTATION	RESPONSES											
		a ⟶	b	a ⟶	b	a ⟶	b	a ⟶	b	a ⟶	b	a ⟶	b
20	L1-Y	⊥	⊥	⊥	⊥	⊥	⊥	1 ⊥	⊥	⊥	⊥	⊥	⊥
19	L2-N	⊥	⊥	⊥	⊥	⊥	⊥	2 ⊥	⊥ N	⊥	⊥	⊥	⊥
18	L2-Y	⊥	⊥	⊥	⊥	⊥	⊥	2 ⊥	⊥	⊥	⊥	⊥	⊥
17	L1-N	⊥	⊥	⊥	⊥	⊥	⊥	1 ⊥	⊥ N	⊥	⊥	⊥	⊥
16	L1-N	⊥	⊥	⊥	⊥	⊥	⊥	1 ⊥	⊥ N	⊥	⊥	⊥	⊥
15	L2-Y	⊥	⊥	⊥	⊥	⊥	⊥	2 ⊥	⊥	⊥	⊥	⊥	⊥
14	L1-Y	⊥	⊥	⊥	⊥	⊥	⊥	1 ⊥	⊥	⊥	⊥	⊥	⊥
13	L2-Y	⊥	⊥	⊥	⊥	⊥	⊥	2 ⊥	⊥	⊥	⊥	⊥	⊥
12	L2-N	⊥	⊥	⊥	⊥	⊥	⊥	2 ⊥	⊥ N	⊥	⊥	⊥	⊥
11	L1-N	⊥	⊥	⊥	⊥	⊥	⊥	1 ⊥	⊥ N	⊥	⊥	⊥	⊥
10	L1-N	⊥	⊥	⊥	⊥	⊥	⊥	1 ⊥	⊥ N	⊥	⊥	⊥	⊥
9	L1-Y	⊥	⊥	⊥	⊥	⊥	⊥	1 ⊥	⊥	⊥	⊥	⊥	⊥
8	L2-Y	⊥	⊥	⊥	⊥	⊥	⊥	2 ⊥	⊥	⊥	⊥	⊥	⊥
7	L2-N	⊥	⊥	⊥	⊥	⊥	⊥	2 ⊥	⊥ N	⊥	⊥	⊥	⊥
6	L1-N	⊥	⊥	⊥	⊥	⊥	⊥	1 ⊥	⊥ N	⊥	⊥	⊥	⊥
5	L2-Y	⊥	⊥	⊥	⊥	⊥	⊥	2 ⊥	⊥	⊥	⊥	⊥	⊥
4	L1-Y	⊥	⊥	⊥	⊥	⊥	⊥	1 ⊥	⊥	⊥	⊥	⊥	⊥
3	L2-N	⊥	⊥	⊥	⊥	⊥	⊥	2 ⊥	⊥ N	⊥	⊥	⊥	⊥
2	L2-N	⊥	⊥	⊥	⊥	⊥	⊥	2 ⊥	⊥ N	⊥	⊥	⊥	⊥
1	L1-Y	⊥	⊥	⊥	⊥	⊥	⊥	1 ⊥	⊥	⊥	⊥	⊥	⊥
0		X	X	X	X	X	X	X	X	X	X	X	X
	DATE												

COMMENTS:

Board
Signing

Type 1

Scoring Form for Step 7 (Phase VIII)

Student ________________________________ Date ______________________ Session # ________

Trainer ________________________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Items Used: 1) _______________ 2) _______________

Display this Item		Ask, IS THIS A ...	Expected Response	Score	Display this Item		Ask, IS THIS A ...	Expected Response	Score
1.	(1)	(1)?	"yes"	⋀	17.	(1)	(1)?	"yes"	⋀
2.	(2)	__________?	"no"	⋀	18.	(2)	__________?	"no"	⋀
3.	(2)	(2)?	"yes"	⋀	19.	(2)	__________?	"no"	⋀
4.	(1)	__________?	"no"	⋀	20.	(1)	(1)?	"yes"	⋀
5.	(1)	__________?	"no"	⋀	21.	(1)	__________?	"no"	⋀
6.	(2)	(2)?	"yes"	⋀	22.	(2)	(2)?	"yes"	⋀
7.	(1)	(1)?	"yes"	⋀	23.	(2)	__________?	"no"	⋀
8.	(2)	(2)?	"yes"	⋀	24.	(1)	(1)?	"yes"	⋀
9.	(2)	__________?	"no"	⋀	25.	(1)	(1)?	"yes"	⋀
10.	(1)	__________?	"no"	⋀	26.	(1)	__________?	"no"	⋀
11.	(1)	__________?	"no"	⋀	27.	(2)	__________?	"no"	⋀
12.	(1)	(1)?	"yes"	⋀	28.	(2)	(2)?	"yes"	⋀
13.	(2)	(2)?	"yes"	⋀	29.	(1)	__________?	"no"	⋀
14.	(2)	__________?	"no"	⋀	30.	(2)	__________?	"no"	⋀
15.	(1)	__________?	"no"	⋀	31.	(1)	(1)?	"yes"	⋀
16.	(2)	(2)?	"yes"	⋀	32.	(2)	(2)?	"yes"	⋀

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

	Nonspeech					Speech				Acceptability	
	+	~~+~~	-	S	0	+	-	S	0	+	0
core											
ercent											

Board
Signing

Type 2

Scoring Form for Step 7 (Phase VIII)

Student ____________________ Trainer ____________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Items: 1) ____________ 2) ____________

a) IS THIS A (LABEL)?* Y: "yes" N: "no"

*LABEL included in this question depends on "Y" or "N" code in the stimulus column.

NUMBER CORRECT	STIMULUS PRESENTATION	RESPONSE													
20	1Y							1							1
19	2Y							2							2
18	2N							2 N							2 N
17	1N							1 N							1 N
16	1Y							1							1
15	2N							2 N							2 N
14	1N							1 N							1 N
13	2Y							2							2
12	2Y							2							2
11	1N							1 N							1 N
10	1Y							1							1
9	1N							1 N							1 N
8	2Y							2							2
7	2N							2 N							2 N
6	1N							1 N							1 N
5	2Y							2							2
4	1Y							1							1
3	2N							2 N							2 N
2	2N							2 N							2 N
1	1Y							1							1
		X	X	X	X	X	X	X	X	X	X	X	X	X	X
	DATE														

OMMENTS:

Board
Signing

Type 1

Scoring Form for Step 7 (Phase X)

Student ______________________ Date ______________ Session # ________

Trainer ______________________

Circle Speech Level: A B C   Circle Trainer's Stimulus: Speech Plus Nonspeech   Speech Alone   Nonspeech Alone

List Item Used: 1)__________ 2)__________ 3)__________

Display this item	Ask, IS THIS A ...	Expected Response	Score	Display this item	Ask, IS THIS A	Expected Response	Score
1. (2)	(2)?	"yes"	_⋀_	19. (1)	________?	"no"	_⋀_
2. (1)	(1)?	"yes"	_⋀_	20. (2)	(2)?	"yes"	_⋀_
3. (3)	________?	"no"	_⋀_	21. (2)	________?	"no"	_⋀_
4. (3)	(3)?	"yes"	_⋀_	22. (1)	(1)?	"yes"	_⋀_
5. (2)	________?	"no"	_⋀_	23. (3)	________?	"no"	_⋀_
6. (1)	________?	"no"	_⋀_	24. (1)	(1)?	"yes"	_⋀_
7. (3)	(3)?	"yes"	_⋀_	25. (3)	(3)?	"yes"	_⋀_
8. (2)	________?	"no"	_⋀_	26. (2)	(2)?	"yes"	_⋀_
9. (2)	(2)?	"yes"	_⋀_	27. (3)	________?	"no"	_⋀_
10. (3)	________?	"no"	_⋀_	28. (1)	________?	"no"	_⋀_
11. (1)	(1)?	"yes"	_⋀_	29. (3)	(3)?	"yes"	_⋀_
12. (1)	________?	"no"	_⋀_	30. (2)	________?	"no"	_⋀_
13. (2)	________?	"no"	_⋀_	31. (3)	________?	"no"	_⋀_
14. (3)	(3)?	"yes"	_⋀_	32. (1)	(1)?	"yes"	_⋀_
15. (1)	________?	"no"	_⋀_	33. (2)	________?	"no"	_⋀_
16. (3)	________?	"no"	_⋀_	34. (2)	(2)?	"yes"	_⋀_
17. (2)	(2)?	"yes"	_⋀_	35. (1)	________?	"no"	_⋀_
18. (1)	(1)?	"yes"	_⋀_	36. (3)	(3)?	"yes"	_⋀_

Record response components as correct (+); Incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	+	-	S	0
Score					
Percent					

Speech

+	-	S	0

Acceptability

+	0

Board
Signing

Type 2

Scoring Form for Step 7 (Phase X)

Student ______________________ Trainer ______________________

Circle Speech Level: A B C   Circle Trainer's Stimulus: Speech Plus Nonspeech   Speech Alone   Nonspeech Alone

Items: 1) ____________ 2) ____________ 3) ____________

a: IS THIS A (LABEL)?*   Y="yes"   N="no"

*LABEL included in this question depends on "Y" or "N" code in the stimulus column.

NUMBER CORRECT	STIMULUS PRESENTATION	RESPONSES													
20	L1-Y							1							1
19	L2-Y							2							2
18	L3-N							3 N							3 N
17	L3-Y							3							3
16	L1-N							1 N							1 N
15	L2-N							2 N							2 N
14	L3-Y							3							3
13	L1-N							1 N							1 N
12	L1-Y							1							1
11	L3-N							3 N							3 N
10	L2-Y							2							2
9	L2-N							2 N							2 N
8	L1-N							1 N							1 N
7	L3-N							3							3
6	L2-N							2 N							2 N
5	L3-N							3 N							3 N
4	L1-Y							1							1
3	L2-Y							2							2
2	L2-N							2 N							2 N
1	L1-Y							1							1
0		X	X	X	X	X	X	X	X	X	X	X	X	X	X
	DATE														

COMMENTS:

Board
Signing

Type 1

Scoring Form for Step 7 (Phases XII and XIV)

Student ______________________ Date ______________ Session # ________

Trainer ______________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

List items used: 1) ____________; 2) ____________; 3) ____________; 4) ____________

Circle phase XII or XIV

Display this Item:	Ask, IS THIS A ...	Expected Response	(Score)	Display this Item:	Ask IS THIS A ...	Expected Response	(Score)
1. (3)	(3) ?	"yes"	⋏	17. (2)	(2) ?	"yes"	⋏
2. (1)	(1) ?	"yes"	⋏	18 (3)	_____?	"no"	⋏
3. (4)	_____?	"no"	⋏	19. (1)	(1) ?	"yes"	⋏
4. (2)	_____?	"no"	⋏	20. (2)	_____?	"no"	⋏
5. (2)	(2) ?	"yes"	⋏	21. (4)	(4) ?	"yes"	⋏
6. (4)	_____?	"no"	⋏	22. (3)	(3) ?	"yes"	⋏
7. (3)	(3) ?	"yes"	⋏	23. (1)	_____?	"no"	⋏
8. (3)	_____?	"no"	⋏	24. (4)	_____?	"no"	⋏
9. (1)	_____?	"no"	⋏	25. (2)	(2) ?	"yes"	⋏
10. (4)	(4) ?	"yes"	⋏	26. (3)	_____?	"no"	⋏
11. (4)	_____?	"no"	⋏	27. (1)	(1) ?	"yes"	⋏
12. (2)	(2) ?	"yes"	⋏	28. (2)	_____?	"no"	⋏
13. (1)	(1) ?	"yes"	⋏	29. (1)	_____?	"no"	⋏
14. (1)	_____?	"no"	⋏	30. (4)	(4) ?	"yes"	⋏
15. (3)	_____?	"no"	⋏	31. (3)	(3) ?	"yes"	⋏
16. (2)	_____?	"no"	⋏	32. (4)	(4) ?	"yes"	⋏

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	+	-	S	0
Score					
Percent					

Speech

	+	-	S	0
Score				
Percent				

Acceptability

	+	0
Score		
Percent		

Board
Signing

Type 2

Scoring Form for Step 7 (Phases XII and XIV)

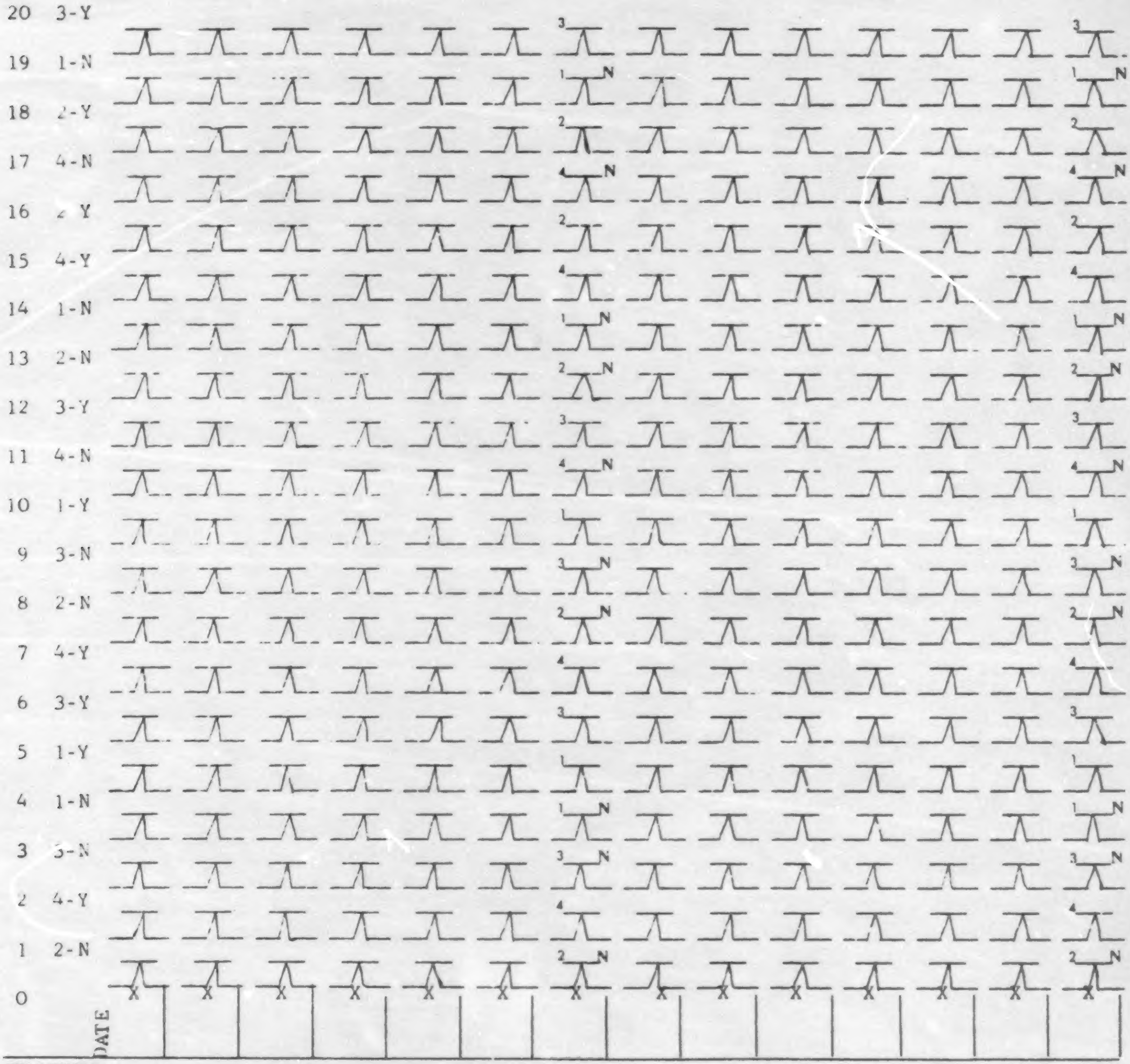
Student ______________________ Trainer ______________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Items: 1) ____________ 2) ____________ 3) ____________ 4 ____________

a) IS THIS A (LABEL)?* Y="yes" N="no"

*LABEL included in this question depends on "Y" or "N" code in the stimulus column.



COMMENTS:

Board
Signing

Summary Form for Step 7

Speech Level: ____________ Trainer's Stimulus: ______________________

Student ____ Trainer ______________________________

Date Training Started _________________ Date Training Ended __________________ Total Sessions to Criterion _________

Percent Correct Responses Across Sessions

Phase "yes"/"no"	Session #																												Speech Approximations
I																													
II																													
III																													
IV																													
V																													
VI																													
VII																													
VIII																													
IX																													
X																													
XI																													
XII																													
XIII																													
XIV																													
Skill Test																													
Date	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	

(Circled percentages represent criterion based on 12 consecutive correct responses.)

Signing   Type 1

Scoring Form for Step 8 (Phase I)

Student ______________________ Date ____________ Session # ________

Trainer ______________________

Circle Speech Level: A B C   Circle Trainer's Stimulus: Speech Plus Nonspeech   Speech Alone   Nonspeech Alone

List Items Used:

(1)__________ (2)__________ (3)__________ (4)__________ (5)__________

(6)__________ (7)__________ (8)__________ (9)__________ (10)__________

Present this item: Ask, WHAT DO YOU WANT?	Expected Response: "I want (label)" (Score)	Present this item: Ask, WHAT DO YOU WANT?	Expected Response: "I want (label)" (Score)	Present this item: Ask, WHAT DO YOU WANT?	Expected Response: "I want (label)" (Score)
1. (1)	⋀	11. (1)	⋀	21. (1)	⋀
2. (2)	⋀	12. (2)	⋀	22. (2)	⋀
3. (3)	⋀	13. (3)	⋀	23. (3)	⋀
4. (4)	⋀	14. (4)	⋀	24. (4)	⋀
5. (5)	⋀	15. (5)	⋀	25. (5)	⋀
6. (6)	⋀	16. (6)	⋀	26. (6)	⋀
7. (7)	⋀	17. (7)	⋀	27. (7)	⋀
8. (8)	⋀	18. (8)	⋀	28. (8)	⋀
9. (9)	⋀	19. (9)	⋀	29. (9)	⋀
10. (10)	⋀	20. (10)	⋀	30. (10)	⋀

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	+	-	S	0
Score					
Percent					

Speech

	+	-	S	0
Score				
Percent				

Acceptability

	+	0
Score		
Percent		

Signing

Type 2

Scoring Form for Step 8 (Phase I)

Student ______________________________ Trainer ______________________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Items: 1)__________ 2)__________ 3)__________ 4)__________ 5)__________

6)__________ 7)__________ 8)__________ 9)__________ 10)__________

a) WHAT DO YOU WANT? "I want (label)"

NUMBER CORRECT	STIMULUS PRESENTATION	RESPONSE												
20	1							1						1
19	2							2						2
18	3							3						3
17	4							4						4
16	5							5						5
15	6							6						6
14	7							7						7
13	8							8						8
12	9							9						9
11	10							10						10
10	6							6						6
9	3							3						3
8	10							10						10
7	7							7						7
6	8							8						8
5	5							5						5
4	1							1						
3	4							4						4
2	2							2						2
1	9							9						9
0		X	X	X	X	X	X	X	X	X	X	X	X	X
	DATE													

COMMENTS:

Signing   Type 1

Scoring Form for Step 8 (Phase II)

Student ____________________ Date ____________________ Session # __________

Trainer ____________________

Circle Speech Level: A B C   Circle Trainer's Stimulus: Speech Plus Nonspeech   Speech Alone   Nonspeech Alone

List Items Used

(1)__________ (2)__________ (3)__________ (4)__________ (5)__________

(6)__________ (7)__________ (8)__________ (9)__________ (10)__________

Display all items Ask, WHAT DO YOU WANT?	Expected Response: "I want (label)" (Score)	Display all items Ask, WHAT DO YOU WANT?	Expected Response: "I want (label)" (Score)	Display all items Ask, WHAT DO YOU WANT?	Expected Response: "I want (label)" (Score)
1.	_/_	11.	_/_	21.	_/_
2.	_/_	12.	_/_	22.	_/_
3.	_/_	13.	_/_	23.	_/_
4.	_/_	14.	_/_	24.	_/_
5.	_/_	15.	_/_	25.	_/_
6.	_/_	16.	_/_	26.	_/_
7.	_/_	17.	_/_	27.	_/_
8.	_/_	18.	_/_	28.	_/_
9.	_/_	19.	_/_	29.	_/_
10.	_/_	20.	_/_	30.	_/_

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

Nonspeech

	+	+	-	S	0
Score					
Percent					

Speech

	+	-	S	0
Score				
Percent				

Acceptability

	+	0
Score		
Percent		

Signing

Summary Form for Step 8

Speech Level: ______________ Trainer's Stimulus: ______________

Student ____ Trainer ____

Date Training Started ________________ Date Training Ended: ________________ Total Sessions to Criterion: _________

Percent Correct Responses Across Sessions

"I want (label)"

	Session #																		Speech Approximations
Phase I																			
Phase II																			
Date																			

	Session #																		Speech Approximations
Phase I																			
Phase II																			
Date																			

(Circled percentages represent criterion based on 12 consecutive correct responses.)

Signing

Type 1

Scoring Form for Step 9 (Phase I)

Student ______________________ Date ______________ Session # ________

Trainer ______________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

List items used: 1)__________ 2)__________ 3)__________ 4)__________ 5)__________

Present this item		Ask this Question	Expected Response	Score
1.	(2)	WHAT IS THAT?	"(label)"	⋏
2.	(5)	WHAT DO YOU WANT?	"I want (label)"	⋏
3.	(1)	WHAT DO YOU WANT?	"I want (label)"	⋏
4.	(3)	WHAT IS THAT?	"(label)"	⋏
5.	(5)	WHAT IS THAT?	"(label)"	⋏
6.	(2)	WHAT DO YOU WANT?	"I want (label)"	⋏
7.	(4)	WHAT IS THAT?	"(label)"	⋏
8.	(3)	WHAT DO YOU WANT?	"I want (label)"	⋏
9.	(5)	WHAT DO YOU WANT?	"I want (label)"	⋏
10.	(1)	WHAT IS THAT?	"(label)"	⋏
11.	(4)	WHAT DO YOU WANT?	"I want (label)"	⋏
12.	(2)	WHAT IS THAT?	"(label)"	⋏
13.	(1)	WHAT IS THAT?	"(label)"	⋏
14.	(3)	WHAT DO YOU WANT?	"I want (label)"	⋏
15.	(4)	WHAT IS THAT?	"(label)"	⋏
16.	(2)	WHAT DO YOU WANT?	"I want (label)"	⋏
17.	(5)	WHAT IS THAT?	"(label)"	⋏
18.	(1)	WHAT DO YOU WANT?	"I want (label)"	⋏
19.	(3)	WHAT IS THAT?	"(label)"	⋏
20.	(4)	WHAT DO YOU WANT?	"I want (label)"	⋏

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (0). For Level C only, score each trial as acceptable as a total unit (+); or not acceptable as a total unit (0).

Percent Summary for Session

	Nonspeech					Speech				Acceptability	
	+	+	-	S	0	+	-	S	0	+	0
Score											
Percent											

Signing

Type 2

Scoring Form for Step 9 (Phase 1)

Student ______________________ Trainer ______________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Items: 1)__________ 2)__________ 3)__________ 4)__________ 5)__________

a: WHAT IS THAT? "(label)"
b: WHAT DO YOU WANT? "I want (label)"

NUMBER CORRECT	STIMULUS PRESENTATION	RESPONSES												
20	a-2							a 2						a 2
19	b-5							b 5						b 5
18	b-1							b 1						b 1
17	a-3							a 3						a 3
16	a-5							a 5						a 5
15	b-2							b 2						b 2
14	a-4							a 4						a 4
13	b-3							b 3						b 3
12	b-5							b 5						b 5
11	a-1							a 1						a 1
10	b-4							b 4						b 4
9	a-2							a 2						a 2
8	a-1							a 1						a 1
7	b-3							b 3						b 3
6	b-4							b 4						b 4
5	b-2							b 2						b 2
4	a-4							a 4						a 4
3	b-1							b 1						b 1
2	a-3							a 3						a 3
1	a-5							a 5						a 5
0	DATE	X	X	X	X	X	X	X	X	X	X	X	X	X

COMMENTS:

Signing

Type 1

Scoring Form for Step 9 (Phase II)

Student ______________________ Date ____________ Session # ________

Trainer ______________________

Circle Speech Level: A B C   Circle Trainer's Stimulus: Speech Plus Nonspeech   Speech Alone   Nonspeech Alone

List items used: (1)________ (2)________ (3)________ (4)________ (5)________

(6)________ (7)________ (8)________ (9)________ (10)________

(11)________ (12)________ (13)________ (14)________ (15)________

Present this item, Ask, WHAT IS THAT?		Expected Response	Score	Ask, WHAT DO YOU WANT?	Expected Response	Score
1.	(1)	"(label)"	Λ		"I want (label)"	Λ
2.	(2)	"(label)"	Λ		"I want (label)"	Λ
3.	(3)	"(label)"	Λ		"I want (label)"	Λ
4.	(4)	"(label)"	Λ		"I want (label)"	Λ
5.	(5)	"(label)"	Λ		"I want (label)"	Λ
6.	(6)	"(label)"	Λ		"I want (label)"	Λ
7.	(7)	"(label)"	Λ		"I want (label)"	Λ
8.	(8)	"(label)"	Λ		"I want (label)"	Λ
9.	(9)	"(label)"	Λ		"I want (label)"	Λ
10.	(10)	"(label)"	Λ		"I want (label)"	Λ
11.	(11)	"(label)"	Λ		"I want (label)"	Λ
12.	(12)	"(label)"	Λ		"I want (label)"	Λ
13.	(13)	"(label)"	Λ		"I want (label)"	Λ
14.	(14)	"(label)"	Λ		"I want (label)"	Λ
15.	(15)	"(label)"	Λ		"I want (label)"	Λ
16.	(1)	"(label)"	Λ		"I want (label)"	Λ
17.	(2)	"(label)"	Λ		"I want (label)"	Λ
18.	(3)	"(label)"	Λ		"I want (label)"	Λ
19.	(4)	"(label)"	Λ		"I want (label)"	Λ
20.	(5)	"(label)"	Λ		"I want (label)"	Λ

Record response components as correct (+); incorrect (-); shaped or prompted (S); or no response (NR). For Level C only, score each trial as acceptable as a total response (+); or not acceptable as a total response (O).

Percent Summary for Session

		Nonspeech					Speech				Acceptability	
		+	+̸	-	S	0	+	-	S	0	+	0
"(label)"	Score											
	Percent											
"I want (label)"	Score											
	Percent											
Total	Score											
	Percent											

Signing

Type 2

Scoring Form for Step 9 (Phase II)

Student ______________________ Trainer ______________________

Circle Speech Level: A B C Circle Trainer's Stimulus: Speech Plus Nonspeech Speech Alone Nonspeech Alone

Items: 1)________ 2)________ 3)________ 4)________ 5)________
6)________ 7)________ 8)________ 9)________ 10)________
11)________ 12)________ 13)________ 14)________ 15)________

a. WHAT IS THAT? "(label)" b. WHAT DO YOU WANT? "I want (label)"

NUMBER CORRECT	STIMULUS PRESENTATION	a → b		a → b		a → b		a → b		a → b		a → b	
20	1	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	1 ⊼	⊼	⊼	⊼
19	2	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	2 ⊼	⊼	⊼	⊼
18	3	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	3 ⊼	⊼	⊼	⊼
17	4	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	4 ⊼	⊼	⊼	⊼
16	5	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	5 ⊼	⊼	⊼	⊼
15	6	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	6 ⊼	⊼	⊼	⊼
14	7	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	7 ⊼	⊼	⊼	⊼
13	8	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	8 ⊼	⊼	⊼	⊼
12	9	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	9 ⊼	⊼	⊼	⊼
11	10	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	10 ⊼	⊼	⊼	⊼
10	11	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	11 ⊼	⊼	⊼	⊼
9	12	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	12 ⊼	⊼	⊼	⊼
8	13	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	13 ⊼	⊼	⊼	⊼
7	14	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	14 ⊼	⊼	⊼	⊼
6	15	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	15 ⊼	⊼	⊼	⊼
5	2	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	2 ⊼	⊼	⊼	⊼
4	5	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	5 ⊼	⊼	⊼	⊼
3	11	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	11 ⊼	⊼	⊼	⊼
2	13	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	13 ⊼	⊼	⊼	⊼
1	15	⊼	⊼	⊼	⊼	⊼	⊼	⊼	⊼	15 ⊼	⊼	⊼	⊼
0		X	X	X	X	X	X	X	X	X	X	X	X
	DATE												

RESPONSE

COMMENTS:

Signing

Summary Form for Step 9

Speech Level: ________________ Trainer's Stimulus: ________________

Student ____________________________________ Trainer ____

Date Training Started ____________ Date Training Ended: ______________ Total Sessions to Criterion: _______

Percent Correct Responses Across Sessions

"I want (label)"
or "(label)"

Session #																			Speech Approximations
Phase I																			
Phase II Total																			
Date																			

"I want (label)"
or "(label)"

Session #																			Speech Approximations
Phase I																			
Phase II Total																			
Date																			

(Circled percentages represent criterion based on 12 consecutive correct responses.)